1008
AFTERMATH
BUFF



John Logan

Aftermath, 1908

Published by the
Class of 1908



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THERE is scarcely anything that approaches compiling an Aftermath for having credit equally, and work unequally, distributed; and it is difficult, if not impossible, to do full justice to those whose aid and interest have to a large extent made an Aftermath possible. We acknowledge the debt we owe the artists outside the class, and the kind assistance of members of the class outside the board. Yet we are certain that not a moment of time has been wasted if the AFTERMATH OF 1908, in after years, answers the purpose for which it was published.

It is assumed throughout that everyone can appreciate a joke; if we err in this, we call attention to the fact that "a knock is a boost"; but for the benefit of those who are still unsatisfied, we add that the Editor and the Business Manager, after June 1, can be reached only through the general delivery.

"THE EDITORS."

To cheer us when in need
To share life's burdens
To help us not to forget
To recall our friends
To see how time changes us
To stir our ambition
To aid us to work hard
To stimulate us to do good
To reverence our professors
To endear to us always "Tech"
To help finally to forge a bond
about the class that time
can never break
For these worthy motives
do we present this book.

Editors 1908 Aftermath.

To the Honorable James Logan, A. M.,
Captain of Industry,
Mayor of Worcester,
Trustee of the Worcester Polytechnic Institute,
Loyal Friend of the Tech and of Tech Men,
This AFTERMATH is Dedicated,
With Hearty Good-Will,
by the
Class of 1908.

The Honorable James Logan, A. M.

JAMES LOGAN was born in Glasgow, Scotland, in 1852, but before he had rounded out his first twelve-month, Worcester County had become his home. His parents were blessed with an abundance of Scotch thrift, but with so little lucre that the cost of the ocean passage was a heavy burden. The boy's early years were spent in Cherry Valley, Leicester, just beyond the limits of Worcester. He left school for the mill at about as early an age as the law allowed, but had the persistence to study evenings with a teacher who had become interested in him. Later he trained himself as a bookkeeper, and secured employment with a manufacturing concern.

In 1873 he became a "Tech!" His matriculation was received not at the hands of the Faculty, but of the students. As a clerk in Sanford's book store, he met most of the boys from the Hill, and they were quick to adopt a man with his capacity for good fellowship. He was much in their rooms, and sang on their glee club, and the professors soon thought that Logan knew more than they did about many of the performances at the "Worcester County Free Institute of Industrial Science." From that day to this, few men have had a wider acquaintance with Tech men, and wherever Tech alumni get together, no one is surer of a warm welcome than James Logan.

In 1878 he entered the employ of the Whitcomb Envelope Co. Six years later, with three men with whom he had been there associated, he withdrew and established the Logan, Swift & Brigham Envelope Co., a firm which soon became the pace-maker in the industry. When ten leading envelope companies were combined to form the United States Envelope Co., it was a foregone conclusion that James Logan must be its general manager, a position which he still holds.

In spite of the heavy demands which business has made upon him, Mr. Logan has been prompt to respond to other calls. He has given liberally of his strength and of his means to the various institutions of his home city. The village where his boyhood was spent has received from him a beautiful park as a memorial to his father and mother who there found rest after a life of toil. For many years he has been one of the main pillars of Central Church. In Worcester politics he has been an active force,

though declining office for himself. He had been repeatedly urged to accept nomination for the mayoralty. In 1907, after his party had been twice defeated, the call seemed imperative. The people's verdict was recorded in his election by a plurality of nearly 1700, the largest ever given in Worcester to a Republican in a first-year contest.

Some years ago, with much hesitation because of his engrossing business cares, Mr. Logan was asked to lecture on "Business Organization" before an Institute class. His reply, prompt and characteristic as it was gratifying, was: "I'll do it! I'll be glad to do it!" The lectures made a strong impression, and later served as a basis of a similar course, delivered at other colleges. In recognition, Dartmouth conferred upon the lecturer the degree of Master of Arts.

In 1900 Mr. Logan became a Trustee of the Institute, bringing to the board eminent qualifications for such service—tact in dealing with men, keen business sense and large financial experience, and strong faith in and enthusiasm for Tech and Tech's future. Two years ago, when the Hill estate was on the point of falling into the hands of a purchaser who planned to cover it with "three-deckers," it was James Logan, this adopted son of Tech, who by his own generous example and by his personal appeals got together the five Alumni who joined with him in paying the $25,000 necessary to prevent the threatened profanation of the Tech campus. It was a characteristic manifestation of the foresight, of the readiness to put forth personal effort, and of the contagion of unselfish leadership which have made many an enterprise go forward when James Logan put his shoulder to the wheel.

Strength to his shoulder! May he live long and prosper!




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1870

Tech's Early History and Customs

Foreword

We have often been criticised at the Institute, and perhaps rightly so, for a lack of school spirit, not necessarily in athletics, but down-right, every-day school spirit. Now, wherein does this want lie, and how can such a spirit be developed at the Tech? When one visits a college, the first things to be shown him are not recitation rooms and shops, but the library, trophy-room or gymnasium, and he will be told with enthusiasm the tradition of the college pump or bell, and stories of former classes. This is apparently just what is lacking here, and it is because of it that this sketch is being written—to instill if possible into the men an interest in the early history, conditions and problems that surrounded the Tech in its infancy. Without exaggeration, probably nine-tenths of the students do not know how the Institute began, and its appearance in the early days. The accompanying illustrations show something of the surroundings then. It is impossible to give more than a mere outline here, but it is hoped that it will create in us an interest in the men to whom we are really indebted for our education. This subject may easily be investigated in one's spare time, for the library fairly abounds with material. This, the fortieth anniversary of the opening of Tech, seems to be a fitting time for this article. The accompanying small half-tones were from photographs taken in 1889.

Early History and Gifts

"The Worcester County Free Institute of Industrial Science" was really an outgrowth of a long-felt want in the manufacturing establishments in and about Worcester. A school was needed to teach practical things, and with this object in view, John Boynton was encouraged to give $100,000 toward the establishment of such a school. Then the mechanics of Worcester found that their ideals were to be no longer dreams, but realizations, and everybody lent a willing hand to this new enterprise. The charter, which was granted in June, 1865, provided for instruction in the practical application of science connected with the arts, agriculture, manufacturing and mercantile business. The corporation was not to exceed

twelve members, one of whom must be the Mayor of Worcester, and another was to be appointed by the State Board of Education from time to time as a vacancy should occur. It could hold real or personal estate to an amount not exceeding $450,000 (afterwards increased).

Hardly had the enthusiasm occasioned by this gift subsided when the Hon. Ichabod Washburn offered, under certain conditions, to build a machine shop to cost not over $12,000, and to furnish the same with a 10 H. P. engine and the necessary machines and tools. In addition to this he gave $5,000 as a working cash capital for the first year, and the income of $50,000 during his life to be used for current expenses, the principal to be given to the Institute at his death. A subscription paper headed by



Stephen Salisbury for a sum of $22,000 was circulated among the manufacturers in Worcester, and further, among the mechanics working in the shops. To this they subscribed liberally, until the building fund reached the sum of $61,000. As a general fund for the expenses of instruction, Mr. Salisbury gave $10,000, soon after adding $50,000 for the same purpose. The interest on the original gift of Mr. Boynton, with the addition of several smaller gifts, added a further amount of $31,000 towards purchasing apparatus. Mr. Salisbury now presented the Institute with the site with which we are so familiar.

The school would not hold the place that it does now were it not for the public spirit and generosity of these men—to say nothing of the untiring efforts of the late Senator Hoar and others—to give the new institution a good start. Our debt to them is great, and a little study devoted to their lives would serve to give us a keener insight into the advantages that are placed before us. To relate in detail of the many gifts that have followed these first would be not only monotonous but uninteresting. These gifts are given in the chronology that follows this article. At the critical time, however, some benefactor has always come forward, and as a result, in addition to the original land and buildings, we now own all of Tech Hill, including the Hill estate, recently purchased, and what was



originally Bliss Field, and we have seen built the Salisbury high-potential and mechanics laboratories, foundry, power house, an extension to the shops, and the new electrical laboratory.

One thing must not be lost sight of and that is that none of the donors has been in any way helped by the Institute. Therefore it has been on every occasion a case of pure sacrifice on their part. Now let us of the present day, who have been materially helped by this institution, imbibe some of the spirit of our elders, and even if we cannot give financial aid, let us stand up body and soul for what has given most of us, at least, a livelihood. Above all, don't knock. Tech has no place whatever for the

knocker. The more we learn to love, honor, and make sacrifices for our school and Alma Mater, so much more have we materially helped ourselves. Here, at least, is one way in which we can show school spirit. Be able to talk intelligently and with interest about your school.

The following is a clipping advertising for proposals for building Boynton Hall. Print from "Worcester Daily Spy," Jan., 1867:

PROPOSALS FOR BUILDING.—Proposals are invited for the erection of a Stone Building in this city, for the Worcester County Free Institute of Industrial Science, according to the plans and specifications prepared by Messrs. Earle & Fuller. The plans may be seen and a copy of the specifications obtained at the room of the Architects, No. 206 Main st. The proposals should be sealed, directed to the Building Committee, and sent in on or before Friday, the 18th of January next.

D. WALDO LINCOLN, Chairman.

d29 d2w

The following are clippings taken from newspapers at that time, giving notices of the dedication exercises. From the "Worcester Daily Spy" for Nov. 11, 1868:

Notices.

WORCESTER COUNTY

Free Institute of Industrial Science.

THE SERVICES AT THE

DEDICATION OF BOYNTON HALL

WILL BE HELD IN THE CHAPEL

On WEDNESDAY, NOV. 11,

Commencing at 10 o'clock A. M. The following is the

ORDER OF EXERCISES.

1—Report of the Building Committee and Delivering of the Keys to the Trustees, by the Chairman, D. W. Lincoln.
2—Reply by the President, Hon. Stephen Salisbury.
3—Prayer of Dedication by Rev. Dr. Sweetser.
4—Music by Select Choir.
5—Addresses by Prof. Lyman of Yale College, and Prof. Woodman of Dartmouth.
6—Inauguration Address by Mr. C. O. Thompson, Principal of the Institute.
7—Congratulatory Remarks by Hon. James B. Blake, Mayor of the city.
8—Music.

At the close of the exercises a collation will be provided in the adjoining hall, for invited guests and others who may attend. After the collation Short Addresses will be expected from several Distinguished Speakers, explanatory of the objects, prospects and wants of the Institution.

Contributors to the Building Fund and citizens generally are invited to be present. The whole building will be thrown open for inspection.

n5 d6t D. WALDO LINCOLN, Sec'y.

Dedication of the Institute.—It will be seen by reference to our advertising columns that the new building of the Worcester County Free Institute of Industrial Science is to be dedicated with appropriate exercises, at ten o'clock to-day. Addresses are expected from Professor Woodman of Dartmouth, Professor Lyman of New Haven, and the Principal, in addition to the formal dedicatory addresses by Mr. Salisbury, Mr. Lincoln and Mayor Blake. A collation will be provided, after which further addresses from Gov. Bullock, Ex-Gov. Washburn, and other distinguished gentlemen are expected.

The invitation is extended not only to all contributors to the building fund and their wives, but also to all other citizens who feel an interest in the occasion. As the number of donors is very large, and the address of many of them is not known, no other invitation could be given.

Contributions to the collation may be sent to the Central Chapel, in the rear of Dr. Sweetser's church on Main street, from 8 to 11 o'clock, this morning, and the committee on reception particularly request that articles may be sent before 10 o'clock, if possible.

To accommodate the public, Mr. L. B. Stone will provide omnibuses at a moderate fare, which will leave the City Hall at 9 o'clock, and every half hour after, and passing through Main street will leave passengers at the Institute.

Early Surroundings

You may say that we are lacking in some of the advantages enjoyed by other schools, in not having customs and traditions of interest. Again you are mistaken. The things are there waiting to be developed. The trouble is that through many conflicting statements, lack of ambition, interest, and perhaps responsibility, those traditions have not been handed down, and therefore are not cherished. For instance, how many of the present students on the Hill know that the largest and best trees that line our drives and walks, were planted by the individual classes? Each one of these trees is a history in itself. Do you know that John Hurley, who is still with us, has been with the school from the beginning? He helped remove the trees from where Boynton Hall now stands. Professor Sinclair has been here since 1871. These men can tell you that there are customs and traditions enough. Have you ever pictured to yourself how the Hill

looked before Boynton Hall was built? To go back forty years, imagine if possible a round hill covered with a thick pine grove. This was cut away, and 15,000 yards removed in grading for the winding drives and walks. West street then extended from Salisbury Street to the top of the Hill. Institute Road, then called Jo Bill Road, was merely a wagon path, and followed a straight line over the Hill, instead of going around as at present. From the corner of Lancaster and Highland Streets to the foot of the Institute Hill was a swamp with no houses, until the President's house, (now occupied by Dr. Jennings) was built. Dean, Wachusett and Lancaster streets were unheard of. On the west there were no houses for a considerable distance, except a one-story hut at the corner of Highland and West streets. What is now Institute Park was then merely a field running



down to Salisbury Pond, which, before the steel mills were built, was a brook. An arm of Salisbury Pond at the time the Institute was opened came up to Salisbury Street, opposite to Dean. Running from Salisbury Street to the pond, opposite to the Institute drive, was a low stone wall, at the end of which was an old apple tree, where the early students spent their study hours in swimming. The base-ball field was where the tennis courts are now. Bliss Field was then covered with bushes and stumps. In brief, Tech was all by itself, out in the country, and it is certainly interest-

ing to note the changes that forty years have wrought. In two score years Worcester has built around Tech, until, with Institute Park, Bancroft Hill and Tower, and the many handsome residences, it has the most desirable situation in Worcester.

Customs

The school has seen nearly as many customs and traditions come and go as it has years. Let us mention a few of these. For over thirty years the seniors had a class-day, with the planting of class trees and the various class-day exercises. The commencement exercises lasted all day. In the morning the seniors read their theses before a board of examiners—a cus-



tom which was continued until the classes became so large that only a few of them were chosen, and it was finally given up entirely. In the afternoon the regular exercises were held, consisting of a number of addresses and the presentation of the diplomas, very much the same as it is today. It was also a custom for many years to hold a bonfire at commencement, and incidentally the burial of text-books in geometry, the burning of

effigies, *et cetera*. This was discontinued when a former Professor disapproved of the compliments bestowed upon him. Until comparatively recent years there has been an annual cane-rush between the sophomores and freshmen. It has long been and is now a custom to try and prevent the juniors from having their "Half-Way Through." An annual Tech play was started, but this, too, was unfortunately discontinued—unfortunately, because a great deal of good can be derived from such a custom. At present athletics is the only competitive thing in the Institute, and opening competition along this new line, we believe would help Tech spirit more than anything else. Another custom still in vogue is the annual "Mountain Day," when we all get a breath of fresh air, and a view from Wachusett or a peek into Purgatory. Last year a custom long buried was renewed when the seniors played the Faculty at baseball. It was the custom for a long time to have a chapel exercise. Attendance was at first made compulsory, then voluntary, and finally it was abandoned by the vote of the trustees. It is the earnest hope of the class of 1908 that in the near future some suitable building will be erected in which this custom can be renewed, and the whole body of students brought together at least once a week—a thing that we have not seen in our four years at Tech. Another custom is the annual Tech banquet, which has proved a greater success each year. Long may this and other customs live, and may the time soon come when Tech will have an assembling place of its own, where these affairs can be held!

Growth of the Institute—Instruction

One way to show the growth of the school is to compare the force of instruction of today with what it was at first. There were five teachers in all to teach all the different branches of engineering. These were as follows:

Mr. C. O. Thompson, Professor of chemistry and principal.
Mr. G. E. Gladwin, Instructor in free hand and mechanical drawing.
Mr. G. I. Alden, Professor of civil and mechanical engineering.
Miss Harriet Goodrich, Instructor in elementary mechanics.
Mr. M. P. Higgins, Superintendent shops.

Compare this with a list of those who today pull the wires.

It is also interesting to note the requirements for admission at that time, as are laid down in the following newspaper article. From "Worcester Daily Spy," Sept., 1868:

WORCESTER COUNTY

Free Institute of Industrial Science.

The First Term of this Institution will commence on TUESDAY, Nov. 10, 1868.

An examination of candidates for admission will be held in the Chapel of the Institute, on Thursday, Nov. 5, at 9 o'clock A. M.

An examination for advanced standing, on Friday, at 9 A. M.

Candidates will be expected to give satisfactory evidence of their acquaintance with the usual studies pursued in the District Schools of the County of Worcester, especially Arithmetic, Geography, and the History of the United States.

Applicants for admission to the examination are required to present, in writing, through the Post Office, their request, addressed to HON. D. WALDO LINCOLN, Secretary, enclosing a certificate from some responsible individual, stating the age, residence, name of parent or guardian of the applicant, and testifying to his good character and habits, and his intentions in entering upon the course of study proposed in the Institute.

A circular, containing a description of studies and other particulars, will be returned to each applicant, or sent to any person desiring information.

Tuition to residents in Worcester County, FREE. To all others, $60 per annum.

The Professor of Chemistry, C. O. THOMPSON, has charge as Principal, with competent Instructors in the several Departments.

STEPHEN SALISBURY, President.
DAVID WHITCOMB, Treasurer,
D. WALDO LINCOLN, Secretary.
EMORY WASHBURN,
ICHABOD WASHBURN,
ALONZO HILL,
GEORGE F. HOAR,
J. K. PURVEAR,
J. B. BLAKE,
C. H. MORGAN,
A. HARDING,
S. SWEETSER,
} Trustees.

Worcester, Sept. 19, 1868. sept 23-8w

Growth of the Institute in Numbers

But perhaps the most exact way of showing the growth is by actual numbers. The first class consisted of 32 or 33 members, of whom 16 were graduated. The first catalogue was issued in 1871 and was a pamphlet of twelve pages. The students all came from Massachusetts, when it was first started; now nearly every State is represented, there being besides eleven or twelve students from foreign countries. The percentage of Worcester County students is decreasing and the number of students outside of Massachusetts is increasing. The following will show the exact growth along these lines:

Distribution of Students Attending the Worcester Polytechnic Institute, 1871-1908

Year	Worc.	Worc. Co. (excl. city.)	Worc. Co. (incl. city.)	State Mass. (excl. Co.)	State Mass. (incl. Co.)	U. S. outside Mass.	Foreign.	Outside State Mass.	Total.
1870–71	35	39	74	3	77	5	0	5	82
1871–72	25	38	63	12	75	14	0	14	89
1872–73	29	30	59	33	92	16	0	16	108
1873–74	40	33	73	26	99	19	0	19	118
1874–75	26	24	60	34	94	24	0	24	118
1875–76	26	27	53	26	79	14	6	20	99
1876–77	33	22	55	22	84	17	5	22	106
1877–78	35	18	53	16	69	15	3	18	87
1878–79	43	19	62	12	74	14	2	16	90
1879–80	43	15	58	16	74	18	1	19	93
1880–81	32	18	50	20	70	28	3	31	101
1881–82	34	20	54	35	89	32	1	33	122
1882–83	30	26	56	34	90	41	1	42	132
1883–84	31	30	61	34	95	41	0	41	136
1884-85	39	30	69	37	106	33	3	36	142
1885-86	45	36	81	43	115	31	7	38	153
1886–87	52	32	84	23	107	30	4	34	141
1887–88	58	35	93	27	120	33	4	37	157
1888–89	69	41	110	28	138	27	3	30	168
1889–90	79	40	119	23	142	27	2	29	171
1890–91	91	45	136	25	161	29	6	35	196
1891–92	112	57	169	33	202	34	7	41	243
1892–93	111	73	184	37	221	49	9	58	279
1893–94	92	72	164	34	198	51	8	59	257
1894–95	74	60	134	25	159	44	6	50	209
1895–96	67	48	115	34	149	46	5	51	200
1896–97	78	52	130	35	165	50	6	56	221
1897–98	79	53	132	34	166	47	3	50	216
1898–99	88	62	150	37	187	45	4	49	236
1899–00	85	62	147	46	193	56	4	60	253
1900–01	92	62	154	53	207	59	4	63	270
1901–02	79	53	133	66	199	50	6	56	254
1902-03	83	44	127	61	188	52	8	60	248
1903–04	95	46	141	66	207	56	9	65	272
1904–05	99	45	144	93	237	78	10	88	325
1905–06	111	61	172	107	279	95	14	109	388
1906–07	110	63	173	136	309	116	12	128	437
1907–08	93	66	159	167	326	128	11	139	465

From "Some Phases of Institute Growth," *W. P. I. Journal*, January, 1906.

Growth in the Studies

Far more interesting than the growth in numbers is the difference in the course of then and now. For instance, for a long time the course was for three years, and there was an apprentice or preparatory class, which was obliged to spend most of its time in the shops and in freehand drawing, before it could be admitted to the school. Others who desired admittance were obliged to show mechanical knowledge and skill equal to those who had taken the course. The three classes were then called the juniors, middlers, and the seniors. For many years there was a summer school, which consisted mostly of shop work. Can you remember for the moment the



stiff exams that you have taken in this school? If so compare them with these, which were the first entrance exams. There were four of them, and although they seem simple today, the records show that many of the applicants flunked, and some of the exams were flunked outright. The following is a list of the questions:

History

1. Who were among the first settlers of America?
2. Who settled New England, New York, Pennsylvania, Maryland, South Carolina and Florida?

3. How did the United States become possessed of Louisiana, Texas, California and Alaska?

4. What caused the War of 1812?

5. Name some of the important fathers of the Revolutionary war.

Geography

1. Why does the climate of Ireland differ from that of Labrador?

2. Where are Lima, Rio Janeiro and Edinburgh?

3. Describe the following rivers: Columbia, Nile and Amazon.

4. Mention the principal mountains of Europe and their direction.

5. Name the principal rivers of New England.

6. Draw a map of the United States giving an outline, principal rivers, mountains.

7. Localize Washington, San Francisco, Chicago and Pittsburg.

Arithmetic

1. Reduce: $\frac{5\frac{3}{4}}{2\frac{7}{8}}$ to its lowest terms.

2. Find the side of a square whose area is 16,297,369.

3. How many cords of wood in a pile 21′ long, 7′ wide and 5½′ high?

4. Find the present worth of a note for $350.75 payable in seven months, money being worth 7%.

5. If $300 gains $18 in nine months, what is the rate %?

To be done by compound proportion.

Algebra

1. Define exponent, also co-efficient.

2. Divide a+1 by a—1, writing to four terms.

3. Divide $a^4 - \frac{1}{16} b^4$ by $a^2 - \frac{1}{4} b^2$ by detached co-efficients.

4. From $\frac{a}{a-b} - \frac{a+b}{a}$ take $\frac{b}{a-b}$

5. Find the greatest common divisor: $2x^3 + x^2 + 5 - 8x$ and $7x^2 - 12x + 5$. $\frac{1}{x} + \frac{a}{y} = b$, $c + by = a$. —Solve.

6. Find four terms of the square root $a+1$.

7. A banker has two kinds of money; it takes *a* pieces of the first to make a dollar, and *b* pieces of the second to make the same sum. If he is offered a dollar for *c* pieces, how many of each kind must he give?



Curriculum

Finally, to show better than anything else how much the courses of study have developed, get out your last year's catalogue and run over the schedule laid down in the many courses, and compare what you find there with the following schedule taken from the first catalogue, which was issued three years after the Tech started:

HOUR-PLAN, FIRST HALF YEAR, SEPTEMBER TO JANUARY, 1870—1871.

	Class	9—10	10—11	11—12	12—1	2—4	2—6	4—6
Monday	Senior	Mechanics	Lec's on various subjects	Optics	German	Drawing		
	Middle	Anal. Geom. B	Analytical Geometry A French B	French A Des. Geom. B	Drawing	do.	Practice	
	Junior	French A Geometry B	Geometry A	Algebra B	Algebra A	Free-Hand Drawing		
Tuesday	Senior	Mechanics		French	Chemistry			
	Middle	Anal. Geom. A	French A Analytical Geometry B	Des. Geom. B	Des. Geom. A	F. H. Draw'g	Practice	
	Junior	French B	Geometry A	Geometry B				
Wednesday	Senior	Mechanics	Optics	French	German	Drawing		
	Middle	Anal. Geom. B	Analytical Geometry A French B	Des. Geom. A		do.		Practice
	Junior	French A Geometry B	Geometry A	Algebra B	Algebra A	F. H. Draw'g		
Thursday	Senior	Mechanics		Chemistry		Drawing		Practice Chemistry
	Middle	Anal. Geom. B	Analytical Geometry A	French A Des. Geom. B		do.		
	Junior	French A	French B Geometry A	Geometry B		F. H. Draw'g		
Friday	Senior	Mechanics		French	German	Drawing		
	Middle	Anal. Geom. B	Analytical Geometry A French B	Des. Geom. A		do.		Chemistry
	Junior	Geometry A French B	Geometry B	Algebra A	Algebra B	F. H. Draw'g		
Saturday	Senior Middle	Practice, 8–12						
	Junior	Free-Hand Drawing, 8–10						

To make this article complete, a chronology of the Tech has been compiled, and it has been made as complete as the space would allow. The major points are given in this, while the minor points are left out. These minor things are often more interesting to read about than what is written here; for instance, the various forms of athletics, and the many scrapes and troubles in which the students have been involved. However, 1908 will be satisfied if the students get enough out of this article to know something about the college they are attending, and are stimulated to sacrifice a small share of their time in developing a more intelligent and hearty Tech spirit.

Worcester Polytechnic Institute Chronology

1865 May 1—Sum of $100,000 was given by John Boynton of Templeton, Mass., to found a Free School of Industrial Science.
June—A charter was granted by the Legislature and a corporation was formed.
Sept.—The building fund, raised by individual gifts and popular subscription, had reached the sum of $50,000.
1866 Mar.—General plans for building formed.
Nov.—Plans of the architect accepted; contract let to Tower, the building to be completed July, 1868.
Ichabod Washburn offered to erect and equip a machine shop, and to give in addition a sum of $5000 as a working cash capital for the first year, and thereafter the income from $50,000 during his life, with the provision that at his death this sum should be given to the school. Gift of $10,000, and later $10,000 more, by Mr. Salisbury, for instruction, and finally $50,000.
1867 —Death of John Boynton. C. O. Thompson elected principal.
1868 —Boynton Hall dedicated.
Opening of school.
Size of first class 32.
Death of Ichabod Washburn.
1869 —$50,000 granted by the Legislature.
1871 —$10,000 given by Mr. Salisbury as a "graduates' aid fund."
Prof. Sinclair became a member of Faculty.
First catalogue was issued.
First commencement—fifteen graduates.
Gift of a wall on Boynton Street by William Knowlton of Upton.
1872 —Apprentice class formed.
Public school teachers' class in industrial drawing formed.
Gift of $40,000 by Mr. Salisbury, the income to be used in the department of English and modern languages.
1873 —Alumni Association formed.
1874 —First annual meeting and banquet of the alumni.
1875 —First regular baseball team.

1875 First student periodical (The Antenna).

1876 —First glee club formed.
Award for exhibit at Centennial Exposition.

1877 —First class book, a pamphlet of 50 pages, 4 x 6 inches.

1878 —Appeal made to the public to raise the sum of $50,000.

1879 —Gift of $2,000 by William Knowlton toward the running expenses.

1880 —Bequest of $1000 under the will of D. Waldo Lincoln, one of the Trustees.

1881 —Gift of $12,000 from Mr. Salisbury and David Whitcomb to enlarge the machine shop.
Gift of $2000 from Mr. Salisbury for deficit in current expenses.
Gift of $2000 from David Whitcomb.
Gift of $1000 from Joseph H. Walker for instruction in the languages.
First field day and class meet.

1882 —Resignation of Prof. Thompson.
Election of Dr. H. T. Fuller as president.
Courses in Electrical Engineering subjects given by Physics Department.
Athletic association formed.

1883 —Inauguration of Dr. Fuller.

1884 —Summer school started.
Death of the Hon. Stephen Salisbury, president of Board of Trustees.
Bequest of $10,000 from Mr. Salisbury as a part of fund for instruction in the languages.
Bequest of $10,000 under will of Lucius J. Knowles for the machine shop.

1885 —Standard in scholarship raised to an average of 50% in all studies.
Death of Prof. Thompson.
Establishment of W. T. I., a school journal.
First tennis tournament.

1886 —Branch of the Y. M. C. A. started at the Institute.
Appeal for State aid.
Bill for $50,000 for student aid passed by the Legislature.

1887 —Gift of $100,000 by Mr. Salisbury for the erection of a mechanical and chemical laboratory.
Name of the school changed from the Worcester County Free Institute of Industrial Science, to the Worcester Technical Institute, and again from the Worcester Technical Institute to the Worcester Polytechnic Institute.
Institute Park given to city of Worcester, with the provision that at the end of twenty years, the Worcester Polytechnic Institute should be allowed to build upon a lot of land within the park, 150′ x 250′ and 60′ distant from Salisbury Street.
A new paper issued, called the W. P. I.

1888 —Construction of the high potential and Salisbury laboratories begun.

1889 —Tuition no longer free to Worcester County students except in so far as the scholarship and funds allow.
Fee for tuition fixed at $150.
Completion of Salisbury Laboratory.
Faculty adopted rules in regard to football (no out-of-town games to be played).
Location and name of the old Jo Bill Road changed to the present Institute Road.

1890 —New course outlined in physics and political science.
Gift of $12,800 by G. Henry Whitcomb and S. Salisbury for repairs on Boynton Hall.
Title of "Principal" of W. P. I. changed to "President."
Gift of $5000 for endowment from Hon. Nathaniel Thayer.
Individual gifts of from $150 to $200 for a new library.
W. P. I. admitted to N. E. I. A. A.
Camera club formed.
Summer school discontinued.
H. L. Dadmum of W. P. I. wins amateur championship of United States for half-mile run, at Washington.
A Tech pin adopted.

1891 —Appeal to public for $100,000.
Φ Γ Δ enters Tech. Term "Aftermath" introduced at Tech.
H. H. Bigelow offers $100,000 for shop purposes, if $75,000 can be raised for erection of shop.
Death of P. L. Moen, one of the Trustees.
H. L. Dadmun elected a member of an all-American team to go to Europe.
Application made to the Legislature for a right to hold more property.

1892 —First attempt at theatricals (minstrel show).
Chapel made voluntary by vote of trustees.
Plans drawn for an extension of the shop.
Tower and bridge in Institute Park built.
W. P. I. gets a fourth place in the N. E. I. A. A. (8 or 10 teams entered).
First attempt to prevent the "Half-way Through."

1893 —A Tech play presented—"Jack and the Bean Stalk."
Banjo club formed.
Fire in Salisbury Laboratory; chemical laboratory and stock room damaged to the extent of $5000.

1894 —Resolution passed the Legislature granting $100,000 to the school.
Dr. Fuller resigned presidency.
Dr. Mendenhall chosen as president.
Σ. A. E. enters Tech.
President's house built.
Construction begun on the power house and mechanical laboratory.
The three separate athletic associations combined into one.
Plant at Chaffin's bought and fitted up.

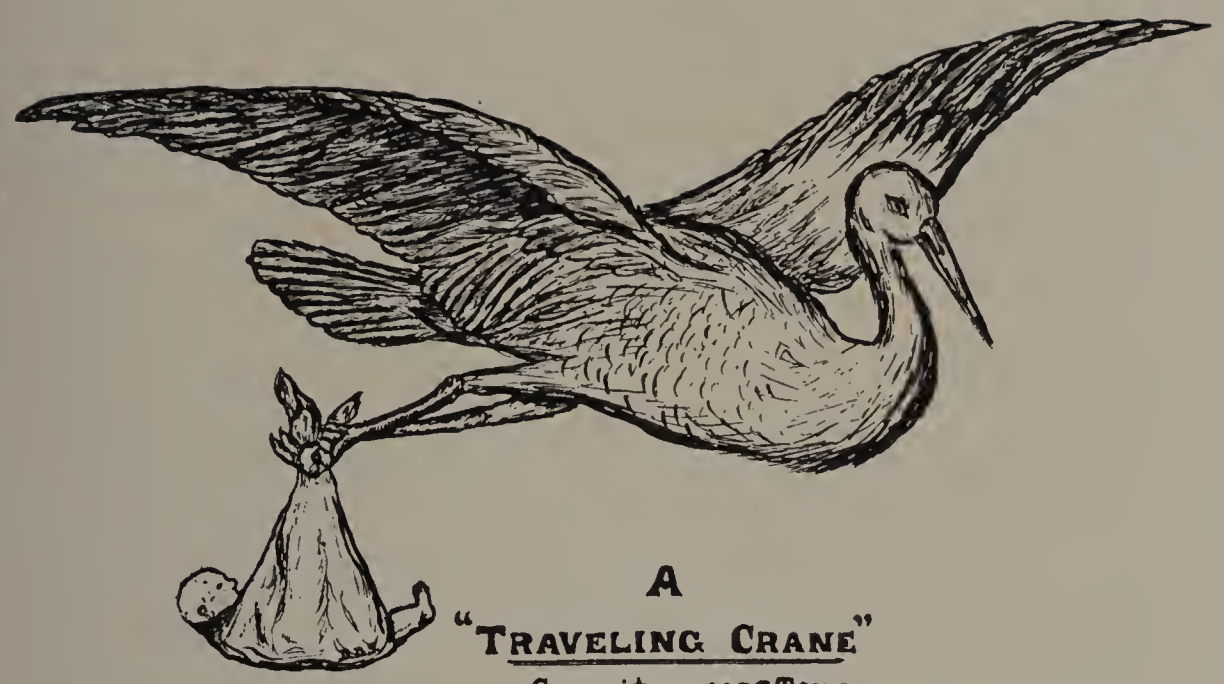
1895 —Phinehas Ball left to the school his residuary estate after the death of his wife and daughter. One-half to be invested, and the other half to remain intact until it shall have reached sixty-four times its value.
Death of Judge P. Emory Aldrich (President of Trustees).
Second Tech play—"Shylock, Jr."
Cane-rush between the Freshmen and Sophomores started.

1896 —Department of electrical engineering established.
Professors Alden, Higgins, and Gladwin of the original corps of instructors resigned.
W. P. I. publication given up.

1897 —The first number of W. P. I. Journal issued.
Death of Prof. A. S. Kimball.

1898 —Tech sent relay team to University of Pennsylvania.
A number of Tech men go to war.

1898 Meeting of National Society of Chemists held here.
Mountain day established.
1900 —Running track built.
Newton Hall opened as a dormitory for W. P. I.
1901 —Class Day is given up.
The Institute and the Shops get gold medal from Pan-American Exposition.
Dr. Mendenhall resigns.
Dr. Engler chosen president.
1902 —Gift of $30,000 for a new foundry by S. Salisbury, G. H. Whitcomb, C. H. Morgan and C. G. Washburn.
Gold medal is awarded W. P. I. from Charleston Exposition.
A basket-ball team is formed.
Tech withdraws from N. E. I. A. A.
1903 —First annual Tech banquet.
Dr. Kinnicutt is elected President of American Association of Chemists.
1904 —Tech enters an exhibit at the World's Fair at St. Louis.
Dr. Engler and Prof. H. B. Smith elected members of international jury at the St. Louis Exposition.
The class of 1908 enters the Institute.
Bequest of $1000 under will of Senator Hoar.
1908 wins class football championship.
Annual grant by the Legislature increased from $6000 to $10,000.
1905 —Class of 1908 wins class baseball and football games.
Tech gets a gold medal and diploma at the St. Louis Exposition.
Stephen Salisbury resigns from the Board of Trustees.
Stephen Salisbury gives $100,000 on resignation.
Death of Stephen Salisbury. He leaves a bequest of $200,000.
1906 —Plans arranged for new electrical building.
1908 wins class meet.
Hon. C. G. Washburn elected President of Trustees.
The Hill estate bought by alumni.
Hill estate cleared and graded.
1907 —Electrical engineering building completed.
A. T. Ω. enters Tech.
1908 —James Logan elected Mayor of Worcester. Class of 1908 graduates and issues Aftermath.



"Don't try to bluff. If you don't know, say so." — *W. W. Bird.*

Rocky—"How would you conduct a boiler test?"
Regan—"Sit on the safety-valve."

"Now, all what you got to do, fellows—"

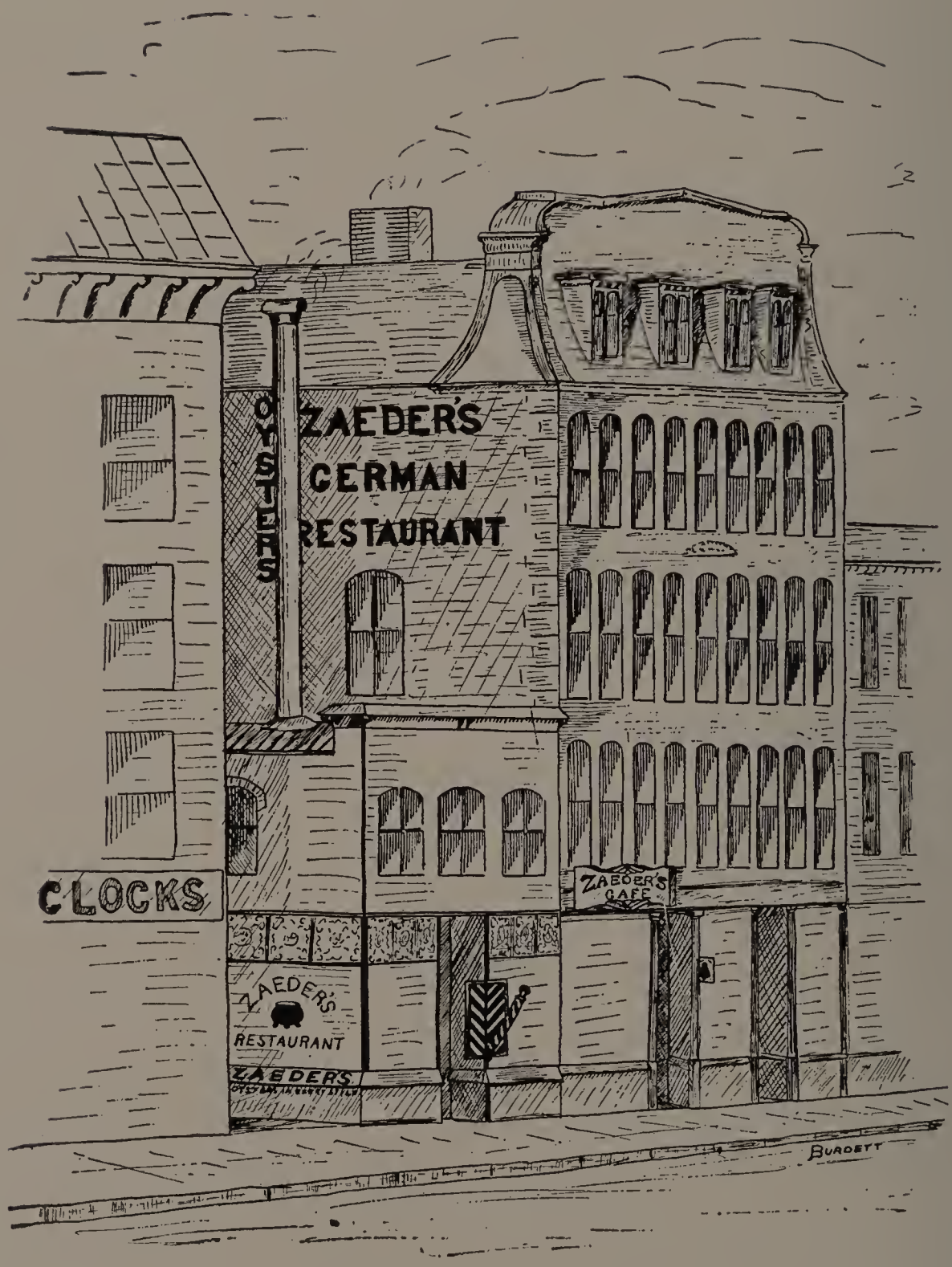
Ask Witham about shifting water-barrel terminals to reverse the current through an ammeter.

Langley, in discussion to Dr. Duff: "To change gram calories to B. T. U's, you divide by the number of liters in a pound."

"Sometimes the poor results of the experiments are due to the use of wrong principles, but sometimes good results come from bad principles."—*Dr. Duff in discussion.*

How to Prevent Sparking.

Move the sofa or light the gas.—*Steinmetz.*



Two Additional



Tech Buildings

The Corporation

President:

HON. CHARLES G. WASHBURN, S.B., A.B.

Secretary:

REV. DANIEL MERRIMAN, D.D.

Treasurer:

LINCOLN N. KINNICUTT, ESQ.

CHARLES H. MORGAN, ESQ.

G. HENRY WHITCOMB, A.M.

REV. AUSTIN S. GARVER, A.M.

REV. L. CALL BARNES, D.D.

ELMER P. HOWE, S.B., A.B.

His Honor, JAMES LOGAN, A.M.

HOMER GAGE, A.M., M.D.

T. EDWARD WILDER, S.B.

ON THE PART OF THE BOARD OF EDUCATION.

MILTON P. HIGGINS, S.B.



Wood—"Yes, Mr. Fish, but how could one manage to get in the factory to make an inspection tour?"

Mr. Fish—"Tell them you're connected with the Worcester Polytechnic Institute—no need of saying how you are connected."

Regan (sotto voce)—"Hanging by a thread."

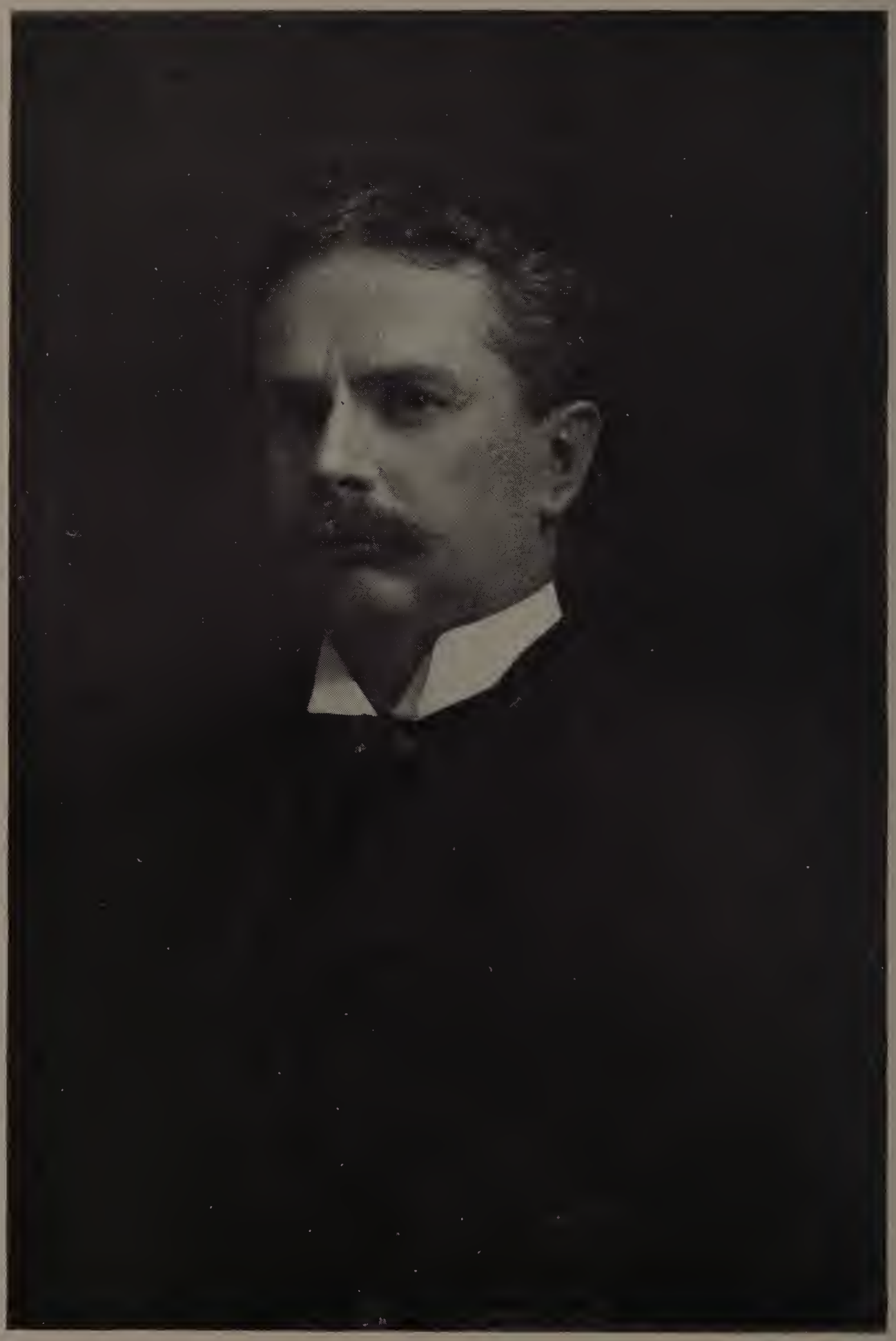
Bidwell's Definition of an Ampere: "An ampere is a circle with a dyne radius and a c. g. s. in the middle."

Prof. Conant (Trig.)—"Mr. Brown, you have only two-thirds of an idea and only half know how to express it."

"Never show disloyalty to the Institute. If you meet a problem in mechanics that you have never heard of, say that you were taught that at the Institute, but that you will have to refresh your memory on it."—*Bird.*

Mr. Gallup—"How would you determine the horse power a gas engine was developing?"

Bing—"By putting my hand on the cylinder and feeling how hot it was."



President Engler.

Edmund Arthur Engler, Ph.D., LL.D.

President.

EDMUND ARTHUR ENGLER, President of the Worcester Polytechnic Institute, was born in St. Louis, Mo., December 23, 1856. He graduated from Washington University in that city in 1876, with the degree of Bachelor of Arts. In 1877 he obtained the degree of Bachelor of Philosophy, in 1879 that of Master of Arts, and in 1892 the degree of Doctor of Philosophy. In 1901 his Alma Mater conferred upon him the degree of Doctor of Laws.

From 1881 to 1901 Dr. Engler was Professor of Mathematics at Washington University. From 1896 to 1901 he was, in addition, Dean of the School of Engineering connected with the university. During the years of his professorship he supplemented his work as student at the university by extensive study in Europe.

Dr. Engler's service in St. Louis was not confined to his academic work as Professor and Dean. From 1898 to 1901 he was President of the Academy of Science of St. Louis; in 1889 he was a member of the Washington University eclipse party at Norman, California; from 1884 to 1900 he was Secretary of the Round Table of St. Louis; in 1901 he was Chairman of the Jury in the Department of Manufactures at the Pan-American Exposition at Buffalo, N. Y.; and in 1904 he was Chairman of the International Jury on Instruments of Precision at the Louisiana Purchase Exposition at St. Louis.

Dr. Engler is a member of the National Geographical Society, of the Council of the American Antiquarian Society, of the American Mathematical Society, and a Fellow of the American Association for the Advancement of Science, and has been a frequent contributor of scientific articles to magazines.

On the resignation of President Mendenhall in 1901, Dr. Engler was elected President of the Worcester Polytechnic Institute. His seven years of service have been years of progress. Many improvements in organization and methods of work and administration are due to his policy. These are not apparent to the ordinary observer from without. Those actually engaged in the work of the Institute as students and instructors appreciate them, however. But certain features are of such general interest that they may be mentioned here, as the acquisition of the Hill estate, which was needed to complete the plot of Institute land bounded by Boynton, Salis-

bury and West Streets and Institute Road; the erection in 1902 of the foundry, supplying a need that had been felt for years; and the erection of the splendid new Electrical Engineering Building. At the same time the material equipment of the Institute in shops and laboratories has been largely increased, the grounds have been improved, the number of professors and instructors has risen steadily, and, perhaps the most striking evidence of a strong and healthy growth, the number of students at the Institute since 1901 has nearly doubled.



Institute Park, 1908

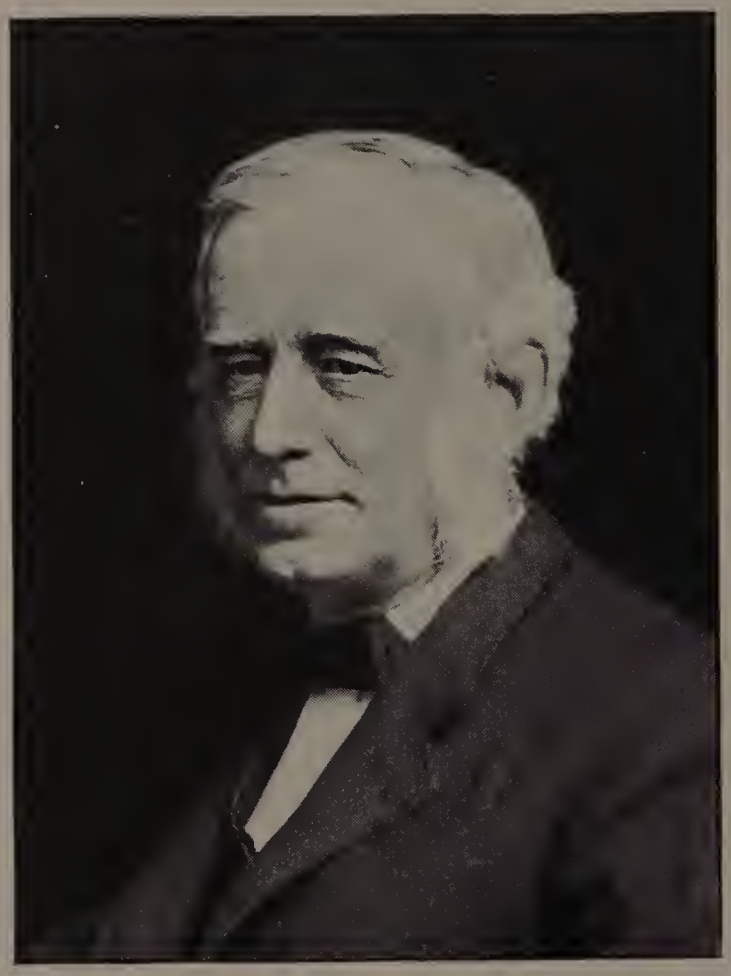


Faculty

Edmund A. Engler, Ph.D., LL.D., President.
John E. Sinclair, Ph.D., Professor of Higher Mathematics.
Leonard P. Kinnicutt, S. D., Professor of Chemistry.
Levi L. Conant, Ph.D., Professor of Mathematics.
George H. Haynes, Ph.D., Professor of History and Economics.
Walter L. Jennings, Ph.D., Professor of Organic Chemistry.
Zelotes Woods Coombs, A.M., Professor of English, French and German.
Harold B. Smith, M.E., Professor of Electrical Engineering.
Arthur Willard French, C E., Professor of Civil Engineering.
A. Wilmer Duff, D.Sc., Professor of Physics.
William W. Bird, S.B., Professor of Mechanical Engineering, and Director of Washburn Shops.
Alton L. Smith, M.S., Professor of Drawing and Machine Design.
Charles M. Allen, M.S., Professor of Experimental Mechanical Engineering.
George I. Rockwood, S.B., M.E., Professor of Steam Engineering.
Joseph O. Phelon, M.M.E., Professor of Electrical Engineering.
Albert S. Richey, B.M.E., Professer of Electric Railway Engineering.
Arthur W. Ewell, Ph.D., Assistant Professor of Physics.
Howard Chapin Ives, C.E., Assistant Professor of Railroad Engineering.
George R. Olshausen, M.E., Ph.D., Assistant Professor of Electrical Engineering.

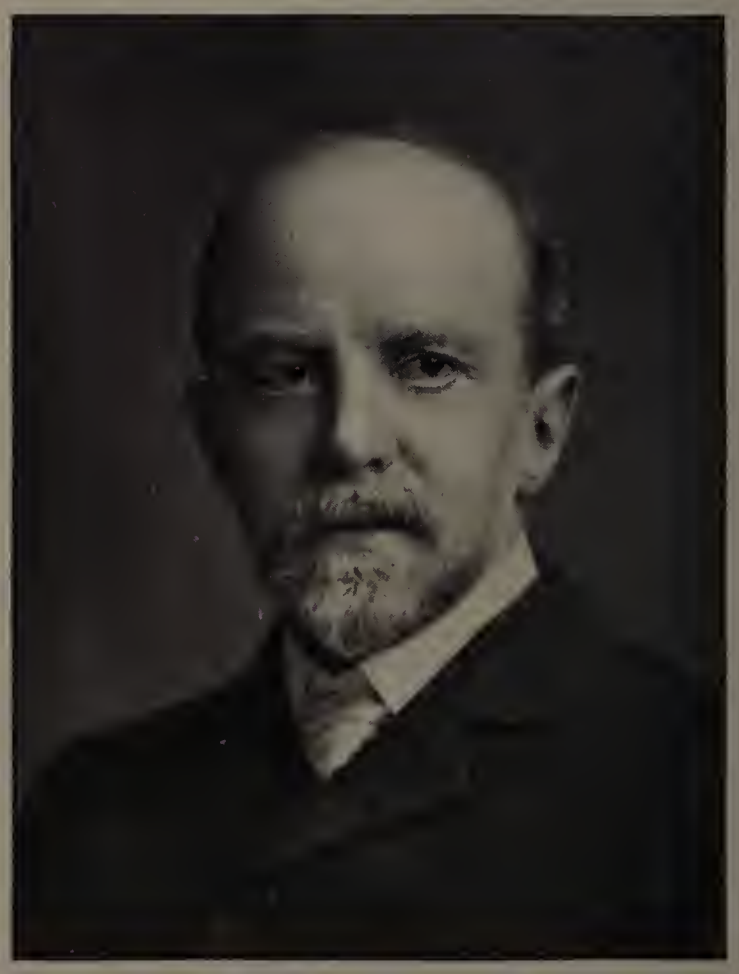
John E. Sinclair, Ph.D., *Professor of Higher Mathematics.*

Dr. Sinclair is a graduate of Dartmouth College, being a member of the Class of 1858. After graduating from college he spent a year teaching in Adrian, Mich. From 1859 to 1863 he was a tutor at Washington University, St. Louis, Mo. In 1863 he returned to Dartmouth and became Professor of Mathematics in the Chandler Department of the college, which position he held until coming to Tech in 1868. He received the degree of A. M. from Washington University in 1863 and the same degree from Dartmouth in 1879. In 1883 he was further honored by Dartmouth by the degree of Ph. D. Dr. Sinclair is the senior member of the Faculty both in age and length of service, and is a man for whom the alumni and student body have the greatest respect and love.



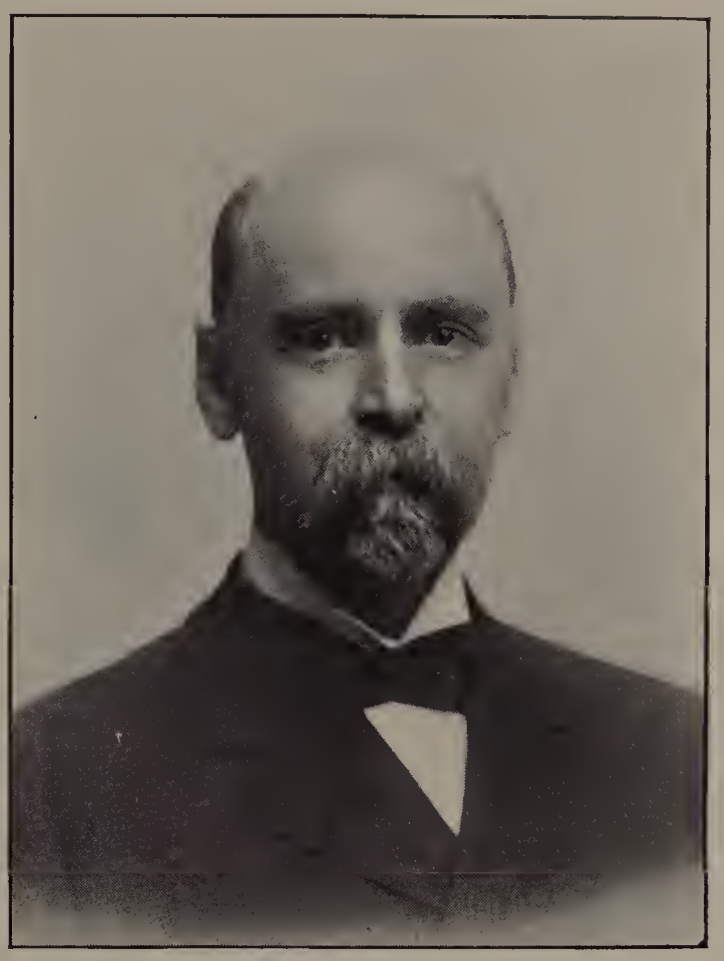
Leonard P. Kinnicutt, *Professor of Chemistry.*

Dr. Kinnicutt was graduated from the Massachusetts Institute of Technology in the Class of 1875. He then took a course of study abroad, spending one year at Heidelberg and a year and a half at the University of Bonn. Returning to America, Dr. Kinnicutt studied a short time at the Johns Hopkins University and then became Instructor in Qualitative Analysis at Harvard. Dr. Kinnicutt received his D. Sc. degree from Harvard in 1882, and one year later came to Tech as Assistant Professor of Chemistry. In 1885 he received the full professorship. Dr. Kinnicutt is a recognized authority on sanitation and has made a careful and exhaustive study of this subject both in this country and abroad.



Levi L. Conant, Ph.D., *Professor of Mathematics.*

Dr. Conant was born in Littleton, Mass., in 1857. He prepared for college at Andover, graduating from Dartmouth in 1879. Between 1880-83 he held the position of principal of the high school in Mankato, Minn., leaving to accept a better position in Elkhart, Ind., and later serving as superintendent of schools in Deadwood, S. D., and also in Rapid City in the same State. In 1887 Dr. Conant was made Professor of Mathematics in the Dakota School of Mines, which position he filled until 1890. The following year he spent in advanced study of mathematics at Clark University, and in 1891 he accepted the Junior Professorship of Mathematics at W. P. I. In 1893 Syracuse University conferred the degree of Doctor of Philosophy upon him. Dr. Conant is a Fellow of the American Association for the Advancement of Science and a member of the American Mathematical Society.



George H. Haynes, Ph.D., *Professor of History and Economics.*

Dr. Haynes graduated from Amherst College in the Class of 1887. He at once became one of the teaching force at the Worcester Polytechnic Institute, where he remained for three years. In 1890 he left Tech to pursue a course of study at Johns Hopkins University, where he received the degree of Ph.D. in 1893. He returned to the Institute and accepted the Professorship of History and Economics, which position he still holds. Dr. Haynes has not confined his activities to the Institute, for he has contributed many articles to journals devoted to history and economics. He is a member of the American Historical Association, the American Political Science Association and the American Antiquarian Society. The enthusiasm and wit which Dr. Haynes always puts into his work make the courses under him very pleasant and interesting.



Walter L. Jennings, Ph.D., *Assistant Professor of Chemistry.*



Dr. Jennings is a Harvard graduate, having received his A. B. in 1889. After three years of advanced work at the same college, he received his Ph.D. The following two years were spent in study at Berlin and Heidelberg.

On his return from Europe he came to Tech as Assistant Professor of Chemistry Dr. Jennings has the happy faculty of making a scientific lecture very entertaining. Dr. Jennings is a tennis expert and a patron of sport in general.

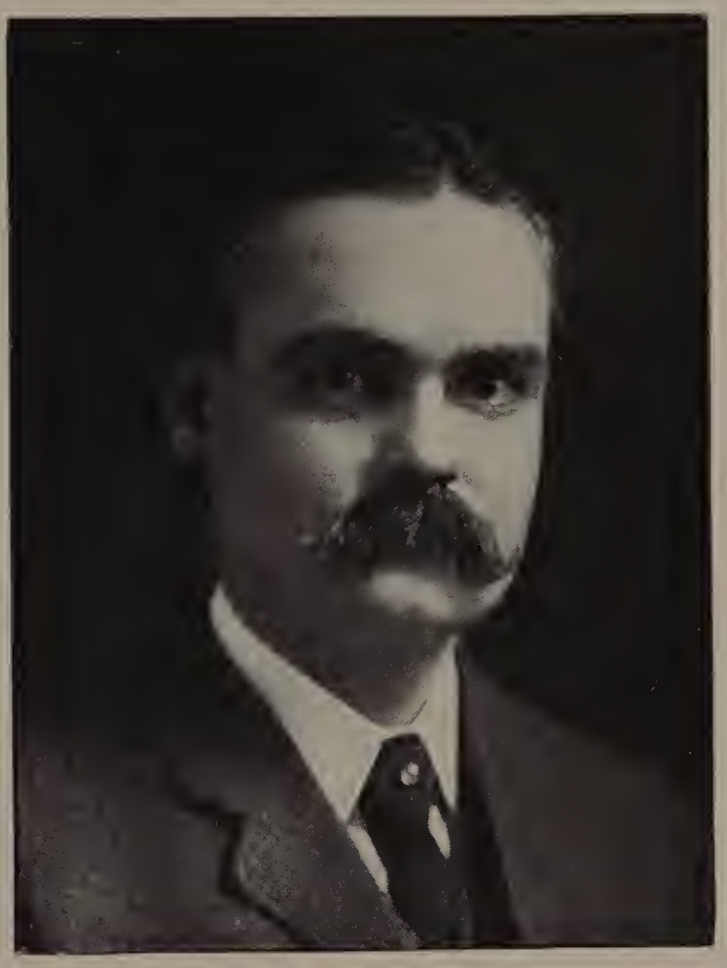
Zelotes Wood Coombs, A.M., *Professor of Modern Languages.*

Professor Coombs was graduated from Amherst College in 1888. For a year after graduation, he was an instructor in Brooklyn Polytechnic Institute. Later he went to the University of Virginia both as a student and instructor. In 1890 he came to the Worcester Polytechnic Institute as Instructor in Modern Languages. He held this position, together with that of President's Clerk, until 1894, when he went abroad and studied at the University of Berlin. On his return he was made Assistant Professor of Modern Languages at Tech. In 1901 he became Professor of French. He spent the summer of 1901 in study in Paris, and since 1903 has been the head of the Language Department. Professor Coombs is the Faculty Director of Athletics at the Institute, and it is largely due to him that athletics have prospered at all at Tech. He is a firm believer in clean sport.



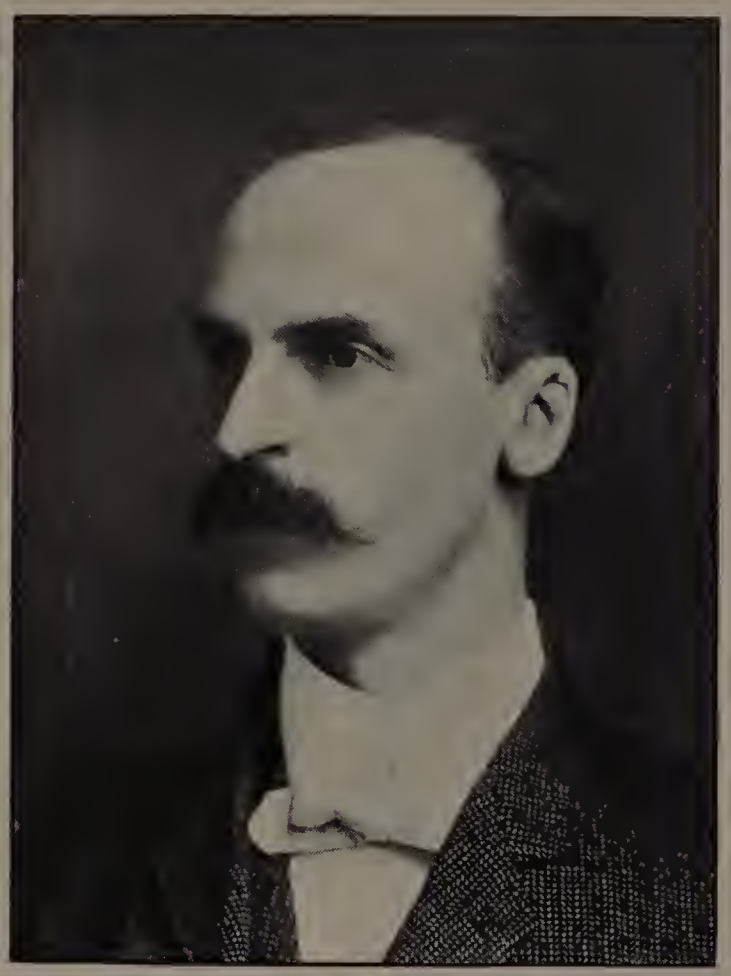
Harold B. Smith, M.E., *Professor of Electrical Engineering.*

Professor Smith was born in Barre, Mass., in 1869. He was graduated from the Barre High School in 1886 and entered Cornell soon afterward. Here he was a prominent member of the Beta Theta Pi Fraternity and was elected to the honorary society of Sigma Xi. After taking a post-graduate course, he became Adjunct Professor of Electrical Engineering in charge of the department at Arkansas State University. He stayed at this school only one year, having accepted positions as head designer and electrical engineer for the Elektron Manufacturing Company of Springfield, Mass., and the Professorship of Electrical Engineering and the direction of the School of Electrical Engineering at Purdue University. In 1896 he came to Worcester Polytechnic Institute and has remained here ever since. Besides having been electrical engineer and designer for the Westinghouse Electric and Manufacturing Company since 1905, Professor Smith revised the electrical vocabulary of the Century Dictionary in 1897, was Chairman of the Jury on Electrical Lighting, St. Louis Exposition, in 1904, and author of about fifty papers on electrical engineering subjects, including one before the International Electrical Congress, 1904.



He is a member of the American Institute of Electrical Engineers, British Institution of Electrical Engineers, American Society of Mechanical Engineers, Society for the Promotion of Engineering Education, Fellow of the Society for the Advancement of Science, and other scientific societies, both at home and abroad.

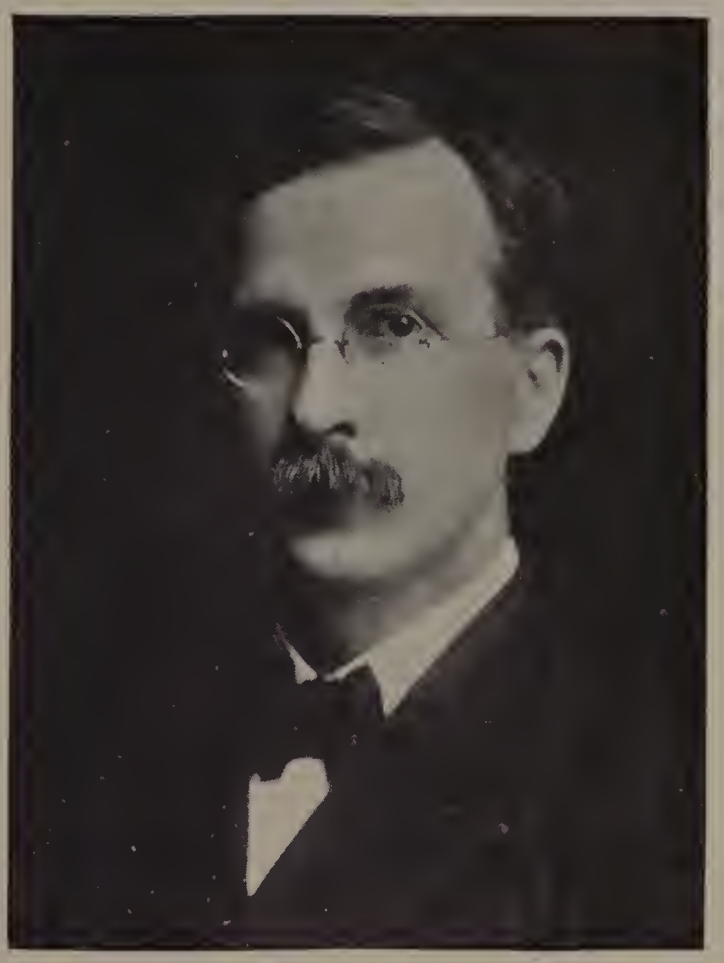
Arthur W. French, C.E., *Professor of Civil Engineering.*



Professor French was graduated from the Thayer School of Civil Engineering, Dartmouth College, in 1892. His first position was with the Tower Brothers, Holyoke, Mass. From there he went to Denver, Col., where he engineered the construction of the Platte River Paper Company's plant. He was later made assistant engineer in bridge design for the Denver & Gulf Railroad. He left this position to become Associate Professor of Civil Engineering at his Alma Mater, which position he held until he came to the Worcester Polytechnic Institute in 1899 as Professor of Civil Engineering. His thorough knowledge of the theoretical side of his profession, backed up by his practical experience, makes him especially well fitted for the position which he now holds. Professor French is a member of the American Society of Civil Engineers and the Society for the Promotion of Engineering Education. He has just been made Chairman of the Commission on the Congestion of Streets, where his work will mean much for the future of Worcester.

A. Wilmer Duff, M.A., D.Sc. (Edin.), *Professor of Physics.*

Professor Duff is a graduate of the University of New Brunswick and, after four years' study, obtained the degree of Master of Arts from the University of Edinburgh. He then spent a year at the University of Berlin, and in 1889 became substitute Professor of Physics at the University of Madras. After a year in this position, he accepted a similar position in the University of New Brunswick and remained there till 1893, when he was called to occupy the chair of Professor of Physics at Purdue. In 1899 he came to Tech as the head of the Department of Physics, and has filled that position up to the present time. The University of Edinburgh, in 1901, conferred upon him the degree of Doctor of Science, an honor which he was the fifth to receive from that institution.



William W. Bird, S.B., *Professor of Mechanical Engineering.*

Professor Bird was graduated from the Institute in 1887, and remained for three years as an instructor and student under Professor Alden. Upon the completion of his graduate work, he became a teacher in the Prospect Union at Cambridge, and also took charge of his father's foundry. He returned to the Institute as Assistant Professor of Mechanical Engineering for two years during the erection and equipment of the Mechanical Engineering Laboratory, and at about the same time became President and Treasurer of the Broadway Foundry Co. He again returned to Tech in 1903 as head of the Mechanical Engineering Department and Director of the Washburn Shops, and has held that position during our entire course.



Alton L. Smith, M.S., *Professor of Drawing and Machine Design.*

Professor Smith entered the Institute with the class of 1890, after having received considerable practical experience in the machine shop of J. Duckworth & Co., of Springfield. After graduation he became an instructor in the Drawing Department, and in 1899 received the degree of Master of Science. In 1900 he became Assistant Professor of Machine Design, and in 1906 received the title of Professor of Drawing and Machine Design and became the head of the Department of Drawing. In connection with the work in drawing, he has prepared a pamphlet on "Technical Sketching and Free-hand Lettering," which is used as a text to supplement the work in that subject. Professor Smith is a member of the American Society of Mechanical Engineers and also of the Society for the Promotion of Engineering Education.



Charles M. Allen, M.S., *Professor of Experimental Engineering.*

Professor Allen is a graduate of the Institute in the Class of 1894, and after the completion of his course returned as an instructor in the Mechanical Department. He received the degree of Master of Science in 1900 and two years later he was appointed Assistant Professor of Experimental Engineering. At present he holds the title of Professor of Experimental Engineering, having complete charge of the Mechanical Laboratories and all experimental work in the department. Aside from his work at the Institute, Professor Allen is an hydraulic engineer of note, and is a recognized authority on water-wheels and turbines. He is a member of the American Society of Mechanical Engineers and the Society for the Promotion of Engineering Education, and an associate member of the American Society of Civil Engineers.



George I. Rockwood, S.B., M.E., *Professor of Steam Engineering.*

Professor Rockwood was graduated from the Institute with the Class of 1888, after a partial course at Phillips Andover Academy. He immediately entered the employ of the Wheelock Engine Co., of Worcester, and remained there as chief draughtsman until 1893. He then established himself as a consulting mechanical and mill engineer with his headquarters in Worcester, and in 1898 the Institute conferred on him the degree of Mechanical Engineer. In 1906 he came back to the Institute as Professor of Steam Engineering, and has charge of the courses in thermodynamics and steam engineering. Besides his other work Professor Rockwood has recently invented and put on the market the Rockwood automatic fire extinguisher, which is already becoming widely used. He is a member of the American Society of Mechanical Engineers.



J. O. Phelon, M.M.E., *Professor of Electrical Engineering.*

Professor Phelon was born in Cherry Valley, New York. He was graduated from Worcester Polytechnic Institute in 1887 with the degree of S. B. in Mechanical Engineering, and was then appointed assistant in physics. In 1890 he received the degree of S. B. in Electrical Engineering. Having received the appointment as Fellow in Electrical Engineering, he spent the year 1900-01 at Sibley College, Cornell University, and received the degree of M.M.E. from there in June, 1901. When the Electrical Department was formed at Worcester Polytechnic Institute in 1896, Professor Phelon became Instructor in Electricity, receiving his appointment as Assistant Professor of Electrical Engineering in 1901, and Professor of Electrical Engineering in 1907.



Albert S. Richey, B.M.E.,

Professor of Electric Railway Engineering.

Professor Richey was born in Muncie, Ind., April 10, 1874. After graduating from the Muncie High School in 1890, he took up the electrical engineering course at Purdue University, from which he was graduated in 1894. He is a member of the Phi Delta Theta fraternity, and was elected to the honorary society of Tau Beta Phi before graduation. In 1896 Professor Richey entered the employ of the Citizens' Street Railway Company at Muncie, and in 1898 he was made chief electrician of that company. In April, 1899, he went to Marion, Ind., as chief electrician of the Marion City Railway Company. This company having been absorbed by the Union Traction Company of Indiana, Professor Richey was made chief electrician of the latter in September, 1899, and in March, 1901, he was made their electrical engineer. After the completion of the construction of the Indianapolis Northern Traction Company, this company was merged with the Union Traction Company, and Professor Richey was made their electrical engineer, in 1905 being made chief engineer. In October, 1905, he resigned that position in order to accept the position of Assistant Professor of Electrical Railway Engineering at Worcester Polytechnic Institute. He became Professor of Electric Railway Engineering in June. 1907.



Professor Richey is a full member of the American Institute of Electrical Engineers. During the past two years he has been retained as consulting engineer for several electric railway companies in Massachusetts. He is also a regular contributor to the editorial columns of the *Street Railway Journal.*

Law (after working three weeks on a design)—"Say, Vic, what are we designing anyway, a motor or a generator?"

Friden (after five minutes' deep thought)—"I don't know; look it up in our note-book."

Arthur W. Ewell, Ph.D., *Assistant Professor of Physics*



Dr. Ewell is a graduate of Yale College and has also taken extensive graduate work at Johns Hopkins University. He came to the Institute in 1901 as Instructor of Physics and has more recently been appointed Assistant Professor. Besides his training here, he has also spent some time abroad studying under eminent German physicists. He has spent considerable time in research work and has perfected an electrical method for producing ozone which has been adopted in a number of industries.

Howard C. Ives, C.E., *Assistant Professor of Railroad Engineering*

Professor Ives was graduated from the Sheffield Scientific School, Yale, in 1898. During the following year he took a post-graduate course in the same school and received the degree of C. E. From that time till his appointment as Instructor in Civil Engineering at the Worcester Polytechnic Institute in 1900, he was engaged in practicing his profession. In 1903 he was appointed Assistant Professor of Civil Engineering at the University of Pennsylvania. He left there in 1906 and returned to the Worcester Polytechnic Institute as Assistant Professor of Railroad Engineering. Professor Ives has made several contributions to engineering literature, among which are "Stereotomy" (with Prof. A. W. French), "Adjustments of the Engineer's Transit and Level," "Problems in Surveying, Railroad Surveying, and Geodesy" (with H. E. Hilts), and "Switches and Turnouts."



George R. Olshausen, M.E., Ph.D.,

Assistant Professor of Theoretical Electrical Engineering

Professor Olshausen was graduated from a five-year course in mechanical engineering at Washington University, where he received his M.E. degree in 1890. During the year 1890-91 he was employed as assistant engineer for the Union Depot R. R. Co., St. Louis, becoming their chief engineer in 1891. The year 1894-95 he spent as chemical manufacturer with C. O. Knoblauch, and as Instructor in Theoretical and Practical Astronomy at Washington University. He again entered the employ of the Union Depot R. R. Co. in 1895 as chief engineer. In 1896 he was employed with Wm. Wharton, Jr., Co., Philadelphia. Professor Olshausen spent the next five years in advanced work in mathematics and physics at the University of Berlin, from which he received his degree of Ph.D. in 1901. Since then he has been: Assistant Professor of Mechanical Engineering, Armour Institute of Technology (1901-02); Professor of Physics, Armour Institute (1902); Engineer with Messrs. Lichter & Jens on power-station work, Omaha, Neb. (1902-3); and Department of Physics, Cornell University (1903-07); Professor Olshausen received his appointment as Assistant Professor of Theoretical Electrical Engineering at W. P. I. in 1907.



Rocky—"What is the mean temperature?"

Cooper—"Half way between the temperature you start with and the temperature you arrive at."

Rocky—"Suppose you start at 212 and arrive at 212?"

Bill—"There is no mean."

"Kinny," the only prof who has been caught on the "fly."

A Tech Man's Soliloquy.

To crib, or not to stay, that is the question:
Whether it is nobler in the mind to suffer
The slams and bangs of some o'er-jealous prof,
Or seek in distant climes more restful scenes
And there, perchance, forget them. To leave old Tech
For e'er, and by our leaving say we end
The troubles and those crams and grinds
That Techs are heirs to; 'tis a consummation
Devoutedly to be wished.
To stay, or go to meet
Paternal wrath—aye, there's the rub;
For home once more, what might occur
When I have shuffled off my name
From this famed college roll! There's a desire
That makes me shun to leave this place.
I fain would stay in spite of the profs'
Wrath at daily stabs and flunks.
For where else could I find again
The perfect rest, that ever charms
And drives away dull care, in lecture rooms?
'Tis ever thus; the sad forebodings
In my weary heart but bring to mind
The fate of others gone before;
They have endured and safely steered their ships
Through storms and doubts like mine.
But can I likewise do? Ah, yes!
What man hath done, that can man also do.
And so there still is hope
For even me of Tech, '08.



PHOTO BY
T. O. WOHLERMUCK,
WORCESTER, MASS.

ROBERT C. SWEETSER, *Instructor in Chemistry.*

Mr. Sweetser, our instructor in analytical chemistry, is an alumnus of the Institute, graduating with the Class of 1883. He has been an instructor at the Institute since that time. Mr. Sweetser, by his ability and thoroughness, has won the respect and esteem of his students.

DANIEL F. O'REGAN, *Instructor in Chemistry.*

Mr. O'Regan graduated from the Tech in the Class of 1891 and, after spending two years in research work under the direction of Dr. G. D. Moore, became instructor in chemistry. He has done considerable literary work, having served as editor of the *W. P. I.*, a former Tech publication, and as editor of the 1901 Aftermath.

He has been connected with the Worcester Evening Schools, and is well known in Worcester as the Principal of the Evening High School.

JOHN JERNBERG, *Instructor in Forge Practice.*

Mr. Jernberg has wielded his hammer in the forge shop since 1882, and has seen the growth of the Institute from an industrial school to its present high standing. He not only possesses the faculty of teaching the work in forging, but is himself a smith of rare ability, as his work will testify. Besides his work as an instructor, Mr. Jernberg has charge of the forge work for the Washburn Shops, and conducts considerable experimental research, having made a study of steels and the effect of different heat treatments.

NOAH ASHWORTH, *Instructor in Management of Engines and Boilers.*

Mr. Ashworth, or "Noah," as he is universally known on the Hill, is the engineer in charge of the power laboratory, and is one of the instructors of longest standing. He has had a wide experience as an engineer, and besides his work at Tech he has also instructed in steam engineering courses in the evening trade school in this city. He is a member of the Worcester Society of Stationary Engineers.

HOWARD P. FAIRFIELD, *Instructor in Machine Construction.*

Mr. Fairfield came to the Institute in 1900 from the Case School, where he held the position of instructor in machine construction and shop work, and since that time has been head instructor in the Washburn Shops. Since his coming, Mr. Fairfield, by carefully planned courses and well-arranged equipment, has brought the courses in shop practice up to the

high rank which they now hold. Aside from his work on the Hill, he writes both for the press and the leading engineering magazines, and is also an amateur photographer of marked ability, illustrating with his camera many of his magazine articles. He is a member of the American Society of Mechanical Engineers, and of several other engineering societies.

DAVID L. GALLUP, M.E., *Instructor in Mechanical Engineering.*

Mr. Gallup was graduated from the Institute in 1901, and immediately became an assistant in the Mechanical Department. He was for a time instructor in free-hand and mechanical drawing, but more recently has given that up to take charge of some of the higher courses. At present he has the elementary work in steam and the courses in gas engines, and is also Professor Allen's assistant in the work in the mechanical laboratories. Mr. Gallup's hobby is gas and gasoline engines, and he has devoted considerable of his time to experimental work along these lines, which has made him thoroughly conversant with the subject.

D. F. CALHANE, *Instructor in Chemistry.*

Doctor Calhane was graduated from Harvard University with the Class of 1894. Nine years later he received his degree of Doctor of Philosophy. Since that time he has been the instructor in industrial and electrochemistry at the Institute.

ELMER H. FISH, S.B., *Instructor in Mechanical Engineering.*

Mr. Fish is a graduate of the Institute in the Class of 1892; and after graduation he became associated with his father in the manufacture of machine tools. In 1903 he returned to Tech as an instructor in the Mechanical Department, having courses in free-hand drawing and descriptive geometry. At present he has charge of the work in machine drawing and elementary machine design, and the junior work in mechanics, where his wide practical training makes his instruction of especial value. Mr. Fish is also a writer for the leading mechanical magazines, and his articles, full of good common sense, and a joke or two, are always read with the greatest interest.

DR. FREDERIC BONNET, Jr., *Instructor in Chemistry.*

Dr. Bonnet is a graduate of Washington University, St. Louis. He received his Ph.D. at Harvard. For a year before coming to the Institute Doctor Bonnet was an instructor at the Iowa State College. Doctor Bonnet was made instructor in inorganic chemistry and organic analysis in 1904. In the time he has been at the Institute he has gained the reputation of being one of the most widely informed men on the Hill.

CARL D. KNIGHT, S.B., *Instructor in Experimental Electrical Engineering.*

Mr. Knight graduated from Tech in the Class of 1903. For a year after graduation he was connected with the testing department of the General Electric Company at Schenectady, N. Y. He returned to the Institute in the fall of 1904 as an instructor in electrical engineering.

WILBER R. TILDEN, *Instructor in Pattern-making.*

Mr. Tilden came to us in 1904 from the head of the pattern shop of the Holyoke Machine Company. Upon assuming charge of the wood shop, he completely discarded the old course of instruction in cabinet making and introduced the present course in pattern making, which has proved a decided improvement. In conjunction with his course of instruction Mr. Tilden has prepared a series of lectures dealing with the work which are of especial interest. During the past summer the wood shop has been completely refitted with benches and apparatus of his design, which have made that department a model of its kind.

CHARLES G. BROWN, A.M., *Instructor in Mathematics.*

Mr. Brown graduated from Wesleyan University in 1904, receiving the degree A.B. The following year he spent at Dartmouth, where he received the degree of A.M. Mr. Brown came to the Institute in the fall of 1905.

ALBERT S. BUZZELL, *Instructor in Foundry Practice.*

Mr. Buzzell became our instructor in foundry work in 1905. He is a thorough foundryman, having gained his experience by hard work. He has also had experience as a teacher before coming to the Institute. Besides his work as an instructor, he is foreman of the Institute foundry, and it has so developed under his supervision that it is not only a model for instruction purposes, but as a commercial enterprise.

C. FLETCHER HOWE, M.S., *Instructor in Physics.*

Mr. Howe was graduated from the Institute in 1904 and since that time has been connected with the Physics Department. Up to 1907 he was a graduate assistant in laboratory work, and spent the remainder of his time in research work. In 1906 he received the degree of Master of Science, and also accepted the position of instructor of physics, which he now holds.

CHARLES B. HARRINGTON, M.S., *Instructor in Physics.*

Mr. Harrington is a graduate of the Institute in the Class of 1904, and, after a course of graduate work and laboratory instruction in the Physics Department, received the degree of Master of Science in 1906. Since that time he has been an instructor in the Physics Department.

JOHN R. McCONNELL, S.B., *Instructor in Mechanical Drawing.*

Mr. McConnell is a graduate of Purdue University, and came to the Institute in 1906 as an instructor in the Mechanical Department. His work is entirely with the Freshman Class, having to do with courses in free-hand and mechanical drawing, and descriptive geometry.

JAMES C. DAVIS, S.B., *Instructor in Mechanical Drawing.*

Mr. Davis is also a graduate of Purdue and became an instructor with Mr. McConnell in 1906. He has charge of courses in free-hand and mechanical drawing and descriptive geometry, and is also assistant to Mr. Fish in the work in machine design.

ROGER DeLAND FRENCH, *Instructor in Civil Engineering.*

B. S. at Worcester Polytechnic Institute, 1905. Taught free-hand drawing in the Rose Polytechnic Institute in 1906, and in the following year became a graduate assistant in the W. P. I.

JOSEPH D. WILLIAMS, *Instructor in Civil Engineering.*

Mr. Williams received the degree of B. S. from the Sheffield Scientific School in 1905. In 1906 he became a graduate assistant in civil engineering at the W. P. I., and in the following year was appointed an instructor in the same department.

FRANCIS J. ADAMS, E.E., *Instructor in Electrical Engineering.*

Mr. Adams graduated from the Institute in 1904. The next two years he spent at the Institute as a graduate assistant in electrical engineering, receiving the degree of E. E. in 1906. For a time he was connected with the engineering department of the Westinghouse Company at Pittsburg, Pa. He was appointed an instructor in electrical engineering at Tech. in January, 1907.

ALBERT T. CHILDS, S.B., *Graduate Assistant in Electrical Engineering.*

Mr. Childs graduated from Tech in 1906 and returned to the Institute the same year as a graduate assistant in electrical engineering.

WALTER D. STEARNS, S.B., *Graduate Assistant in Electrical Engineering.*

Mr. Stearns graduated from the Institute in the Class of 1906. Since that time he has been a graduate assistant in electrical engineering.

GEORGE R. MARTIN, S.B., *Graduate Assistant in Electrical Engineering.*

Mr. Martin graduated from Tech in 1906. He returned to the Institute in the fall of that year as a graduate assistant in electrical engineering.

ERWIN A. ADAMS, S.B., *Graduate Student in Mechanical Engineering.*

Mr. Adams is a graduate of the Institute in the Class of 1906, and since that time has been a graduate assistant, devoting a portion of his time to research work and the remainder to instruction in mechanical drawing and assisting in laboratory work.

CHARLES S. FRARY, S.B., *Graduate Student in Mechanical Engineering.*

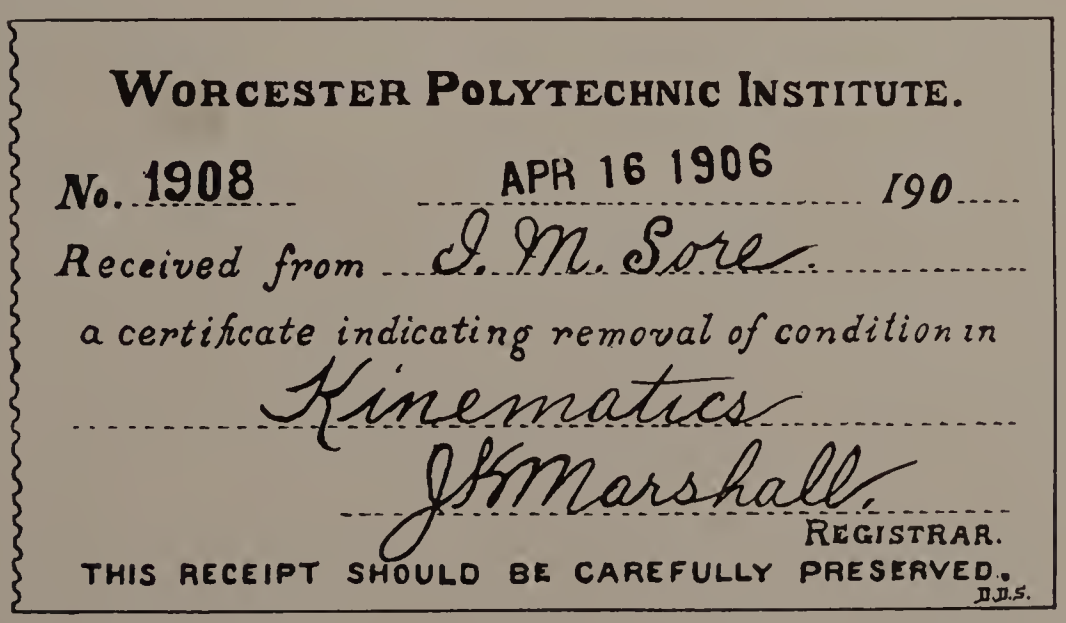
Mr. Frary is a classmate of Mr. Adams, and is pursuing a similar course of study. He is an instructor in drawing, and laboratory assistant to Professor Allen.

CHARLES E. ROBINSON, *Instructor in Languages.*

Charles E. Robinson prepped at Phillips Exeter Academy, graduated from Brown in '05 with an "A. B." and in '09 gets an "A. M." from the same place.

NABOTH HEDIN, *Instructor in Languages.*

Naboth Hedin prepped at Gunnery School in Watertown, Conn. He is a member of the Class of 1908 of Harvard, and gets his "A.B." this year. While in college he was one of Harvard's star track men, being a long distance specialist.


WORCESTER POLYTECHNIC INSTITUTE.

No. 1908 APR 16 1906 190

Received from J. M. Sore

a certificate indicating removal of condition in

Kinematics

J. K. Marshall.

REGISTRAR.

THIS RECEIPT SHOULD BE CAREFULLY PRESERVED.

D.J.S.



John Kingston Marshall

Registrar

Mr. John K. Marshall was born at Halifax, Nova Scotia, Dominion of Canada, in 1871. In 1881, shortly after the death of his father, he came with his family to Boston, Mass. He received his education in the public schools of Boston, at private school, and business college. He came to the Institute as Registrar and Secretary of the Faculty in 1894.



Emily M. Haynes

Librarian

Miss Haynes is a graduate of the Library School of the Drexel Institute in the Class of 1902. She had already had some considerable experience along that line of work, and immediately upon graduation came to Tech and assumed charge of the general library. Since that time she has occupied the same position, and her efficient administration is felt and appreciated by all who have occasion to use the library.

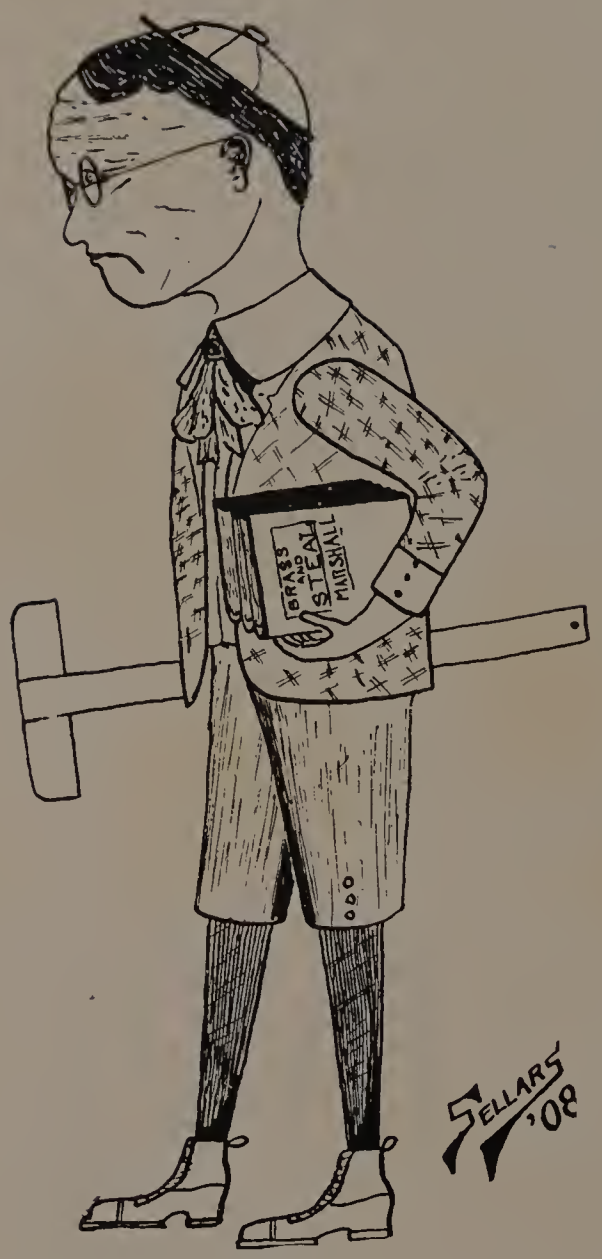
W. P. I.

W is for Worcester, a pretty good town,
Especially when one has his troubles to drown.
O is for O'Regan, so smiling and fat,
It takes a lot of ale to put Danny on the mat.
R is for Rogers, and his little toque,
The fellows seem to think it a heap big joke.
C is for Champney, who takes our good gold,
For books and for paper, at profit ten fold.
E is for Smilax, who, trusting to fate,
Is awaiting his doom with a smile on his pate.
S is for Stockbridge, a shark without doubt—
Which somehow or other the profs don't find out.
T is for Trott with plenty of gas,
He's Johnnie-on-the-spot when it comes to the sass.
E is for Engler, who, when marks are due,
Hands us our lemons and tells us "Skidoo."
R is for Ronian and his running-mate "Stubby;"
Bill says he makes a pretty good "Hubby."

P is for Packard, and his love of hot air;
He and "Bull" Lowe would make a good pair.
O is for Oliver, who took all our faces,
And then made us look like poor homely cases.
L is for Lathrop, and his trip on the trolley,
All aboard for Emerson's! How about it, Lolly?
Y is for "Yammy," that happy little man,
Who likes the girls as well as Americans can.
T is for Truesdell, and all that he knows
About Tech, about women, and all latest shows.
E is for Ewell, who hunts in Perdunk—
Gee! how he does make the Sophomores flunk!
C is for Coolidge and his blessed assurance—
And may all his listeners be blessed with endurance.
H is for Hoppy, a funny old prig,
Who cursed Stubby when he stuck him in Trig.
N is for Nims and the Y. M. C. A.,
He tends strictly to it, and is never away.
I is for Ives, that man we've heard tell,
Came up from the U. to give us all h——.
C is for Cottrell, our most popular man,
Who besides playing football is a baseball fan.

I is for the Institute and its good name,
May it grow in prosperity as well as in fame!
N is for Noah, true friend of the student,
Who takes bets on Tech when he deems it is prudent.
S is for Sawin, long, lean and lank,
Dubbed by the mechanics a deuce of a crank.
T is for Tilden, the king of the saws,
Our only man who knows the action of jaws.
I is for Moment we've so often heard tell,
That equals Mk^2, as we know so well.
T is for Tech and sometimes for h——
For just which it is, I'll leave you to tell.
U is for Us, this our class of '08;
May she always be blessed with the kindest of fate.
T is for time for the lessons we learn,
It's a cinch that at Tech we have no time to burn.
E is for Evelyn, our only co-ed,
Would she weren't a stenographer, but a student instead!





Freshman Class.

As told by a member of 1911.

Just as the early chronologists of Rome began their histories with the beginning of the world, so does the historian at Tech begin the history of his class with the climbing of Tech Hill.

Some of us with sinking hearts, sleepless eyes and knocking knees climbed those long-beaten paths in June to ponder over the "exams"— and perhaps our neighbors — with that ever-present feeling that the "road to fame" through this school had certainly a different aspect than when at "prep school." Others went through the same process in September, while others simply "walked right in," the so-called "prep school sharks."

The afternoon of September 18 made 145 of us all on the same footing, namely — "The Freshman Class of 1911." What a day that was,—books to be bought, schedule to be straightened out, letters to be written to mother and—Prof. Conant's lesson in algebra to be prepared for nine the next morning.

Within a week we had organized and elected class officers, as well as having appointed a committee to draw up a constitution, which governed us as it has all classes—at just the meeting in which it was read.

We had been in Tech but a few weeks when the upper-class men, especially the Sophomore class, informed us that the rules posted on and about the buildings must be carried out to the letter. After much grumbling, we accepted them, and consequently gave the class of 1910 a chance to help out their "Freshmen Fund" by buying a little gray cap with a red button. Two rushes resulted from the too strenuous enforcement of these rules, in both of which we came off victorious.

The athletic element in our class seemed to be prominent from the very first, for when we were called upon to play that decisive football game, we picked a team that not only beat them to the tune of 14-0, but showed the Sophomores that even though they had had Varsity training, they lacked the spirit which is always present in a successful team. This contest put an end to the Sophomore rules, and from then on we were simply Fresh-

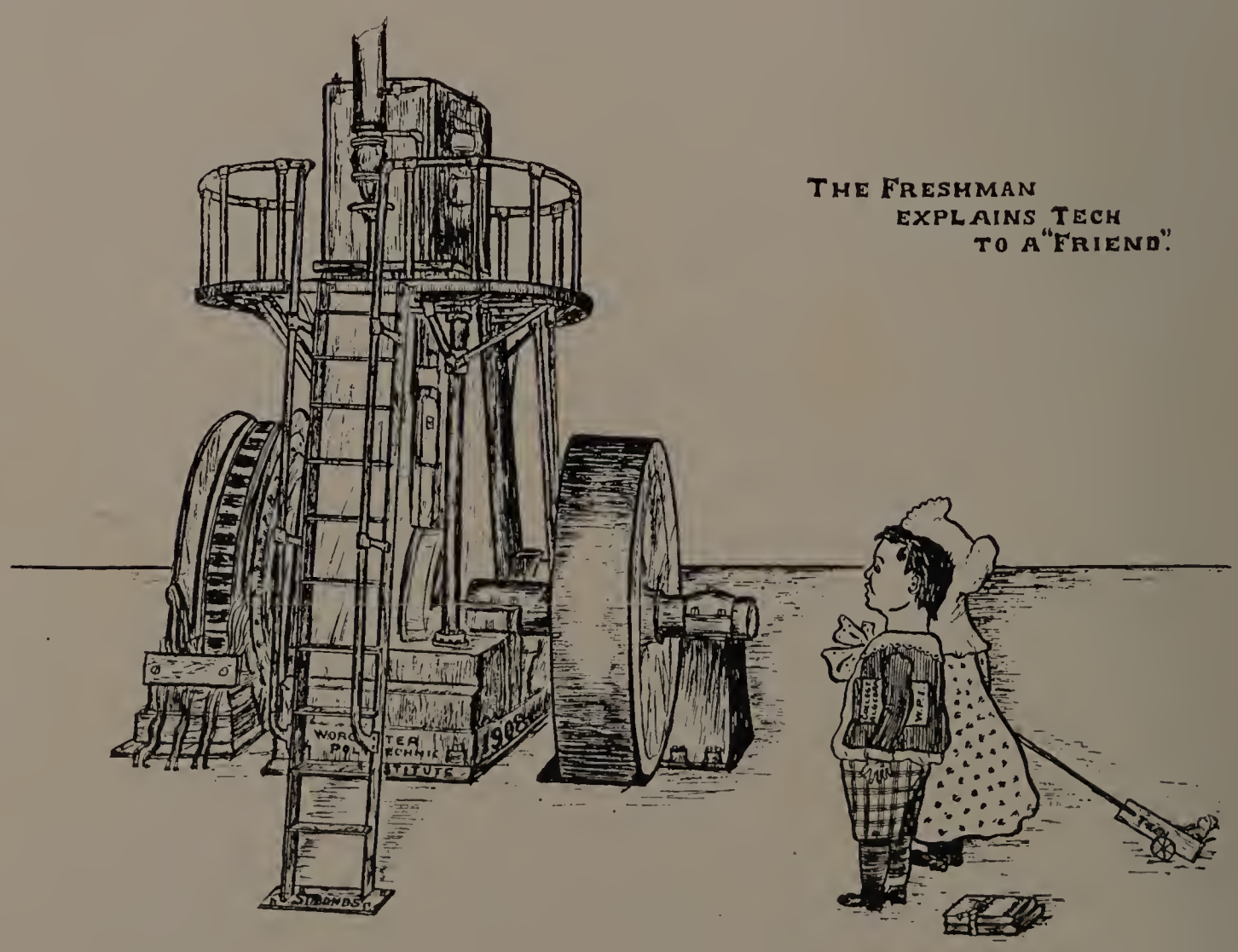


CLASS OF 1911.

men, dictated to only by those who daily spoke to us from the school rostrums. We also did promising work in the cross-countries, winning second place. At basketball the Sophomores took the chance to beat us by the meagre score of 14-10. During the season of athletics eight of our men have won their "W's"—a sure sign of a growing spirit, which, we are sorry to say, is rather dormant as compared with that in the preparatory schools we have left.

In the spring we again took the lead in spirit and started the Sophomore class going by giving them a thorough wetting down with a fire-hose—the outcome of which was the putting of a few of us into Salisbury Pond, when we were caught strolling alone after some recitation.

At the Institute we have tried to do our share in helping along all events by attending functions in goodly numbers and coming to the front with all the rest in any request that has reasonably seemed just to enforce. Taking us as we come, and forgetting our bad points, dwelling on our good ones, you will find us worthy of a place in the Institute.



THE FRESHMAN
EXPLAINS TECH
TO A "FRIEND".



SOPH

It was a beautiful day in the fall of 1906 when the boys of the Class of 1910 (apparently frightened half to death) made their initial appearance on Tech Hill; and they have been making appearances, for better or worse, ever since. The first time they seemed to assert that they had a right to be here was when they were first sitting to have their good looks recorded. They were all fixed up prettily in their Sunday best before the camera, when, alas! from a top story window, about twenty Sophs played the hose on them. This, however, did not dampen their courage as it did dampen other things. Straightway they formed into two platoons, one rushing up on one side, the other on the other, thus flanking the enemy on the east and on the west. In the meantime the Sophs had barricaded the doors, but this was of no avail; the mighty Freshmen, with their mighty feet, kicked in the mighty planks and the battle raged, and kept on raging till Prof. Coombs arrived on the field, mounted his four-legged table and commanded the battle to stop. It did, and the survivors hastened from the field, as did also the dead and the wounded.

After doing so well with the Sophs they became skunky and mixed themselves up in our Half-way-through banquet, but afterwards repented. They then tried their hands (also their feet) at football, but were beaten by the Sophs at that, although they had several Varsity men with them.

They had four men in the Varsity basketball squad, which was rather fair for Freshies. In baseball they originated the idea of a division team league, which we hope will be a regular Freshman stunt. Each division was represented by a team, which met every other division team during the playing of the schedule, and the class put up a banquet at the State Mutual for the winners.



CLASS OF 1910.

In the Sophomore-Freshman baseball game the Freshies walloped the Sophs to the tune of 6-0. The Sophs didn't have a look-in.

The Freshies pulled off their banquet in great style, and celebrated afterward by yanking a much-admired Soph out of his warm roost into the chill night air.

It being now the end of their year as Freshies they began to consider how they should receive the coming Freshmen. A number of meetings were held, and a greater number of lively debates. Their idea was to do something that would excite more class spirit, for they felt that their Freshmen year was too timid. To that end they instituted a set of Freshman Rules, which were heard the world o'er, nearly, and which were really a bigger bite than they could chew. However, we can but give them great credit for taking the initiative, for they did it with the hope that the Tech spirit would be thoroughly awakened.

With the beginning of their Sophomore year, 1910 determined to show themselves worthy of being classed above mere Freshmen. Accordingly, they decorated the grounds with the aforesaid set of rules and proceeded to enforce them. Then the trouble began. A reception was given to the Freshmen at Plymouth Church, and our now brave Sophomores captured about twenty-five Freshmen, marched them through Main Street, set them in the car tracks, ran them through gauntlets, and in general passed a very enjoyable evening. Then followed a couple of class rushes, then more church receptions, and then a real rush on the Common, where the excitement became so intense that one of the Sophomores was compelled to take a short nap.

Next in this famous history came the football game between 1910 and 1911. The Sophs had a team composed more than half of Varsity men, and yet,—but it would be a shame to relate the sad result. The Freshmen became so spunky after this great victory that they made a bonfire on Alumni Field and offered up their red-top caps which the Sophs had forced them to wear.

The next great event was the banquet of the Sophs. The Freshies stood outside the hotel and "shot off" considerable "hot air" as to what was going to happen. But when the Sophs left the hotel, they were quite noticeably absent. They had even forgotten to rescue their President, who had graced the tables of the Sophs and fattened himself on warm milk from a nursing bottle.

To make matters still more disconcerting for the Freshies, on the night of the latter's banquet, the Sophs quietly entered the Bay State House and stole out with the overcoats and hats of the Freshies. Here again we must stop and give the Sophs credit, for that certainly was as great a hoax as was ever worked on a class at Tech.

The Sophs then trimmed the Freshies at basketball in a hard-fought battle, 14-10, but they certainly had to work for it.

Here we must leave this illustrious class of 1910, although it seems a shame to do it. One might go on for aye and aye, but lack of space will not permit. They have now struggled through almost two years of Tech life, and we sincerely hope that they will all get by the remaining two.





THE TECH ALPHABET

Stubby—"What physical examinations are there to water?"
Ellsworth —"Odor and smell."

Water Supply.—Ellsworth: "Water cannot exist 600 degrees below the surface of the ground."

In the least squares exam there were seven questions, numbered 1, 2, 3, 4, 5, 6, 7. On the board was written: "Do (5) or (6)," so Davenport did five.

"I love its gentle warble,
I love its gentle flow.
I love to wind my tongue up,
I love to hear it go."—*Several.*

When a farmer's son goes to college,
He proves himself naught but a goose.
While the old man is raising potatoes,
The young man is raising the deuce.

"A dance to me is not a dance,
Except when I may fly
At intermission down the street,
And buy a chicken pie."—*Newman.*

Breathes there a man with soul so dead,
Who never to himself hath said,
When at half past one, he went to bed,
To — away with Tech.

"He has hard work that has nothing to do"—at Tech.



CLASS OF 1909.



JUNIOR

The Class of 1909, numbering at present a little over 80 men, has lost nearly one-half of the strength it boasted at its first registry, if numbers are to be a criterion of strength. Its tale in September of 1905 was 152. After attending the several church receptions and the Y. M. C. A. reception, the first sign of any class activity was given when it chose as its first President Frank S. Calhoun, of stately figure and statesman's name. The Freshman-Sophomore football game of that year will be remembered as a hot contest, with the Class of 1909 a close second. 1909 contributed to the Varsity football and baseball teams. With R. W. Crowther doing notable work on the former, E. B. Haslop, sharing the honors of the pitchers' box with Cottrell '08, and H. W. Bell playing through the season in the right field, 1909 surely did her share. The banquet in the State Mutual building, held in April, was in every respect a capital performance. The bonfire with which they closed the night's speech-making was so much like a conflagration that the fire department took part in the celebration.

The ranks of the class were thinned somewhat when it returned to the Hill in September of 1906. A. C. Bartlett scored high in the cross-countries, but too few '09 men entered to bring great glory to the class. Another banquet, a fracas with the Freshmen, in which the latter were treated to a water-cure delivered from the nozzle of the Boynton Hall hose, and a Freshman-Sophomore baseball game, in which '05 was worsted, rounded out another year.

As Juniors the '09 men have shown up well. With a successful Half-way-Through, with an excellent Prom to her credit, with an Aftermath under way, and with a reputation for high scholarship, the class closes its third year and takes rank, upon the graduation of a still more glorious class, the Class of 1908, as the Senior class.



SENIOR CLASS

Freshman Year

On Wednesday, Sept. 15, 1904, we were assembled in the chapel at 4.30, where Coombs and Doc. Conant took a look at us, and a likely looking bunch of screws we were. Prexy was away, out in Idaho, or the Indian Territory somewhere, looking up money for a new Assembly Hall, a new civil building, and a raise. After the customary speech, which, by the way, we have heard several times since with a first-line change, we were given registration blanks and were soon real Freshmen. We were told that Professor Conant's assignment in permutations and combinations went as far as Mutually Exclusive Events, p. 439, in Wells, that the first chemistry lecture would be on the last 300 pages of Newth as far as Hypoconglomerates of Potassium Acetate, or something like that, and that he, Professor Coombs, would see us in the chapel next day; we found that the chapel rightly deserved its name, for it was a good place to sleep. Then after making the first of a long series of trips to the stock room and dutifully promising to join the Y. M. C. A., we went home to get our first lessons and to write "dad" for more money.

During the first half we learned quite a bit about the Place, and the profs. We heard the "Big Snake" story and the "Highway Robbery" adventure, described Bancroft Tower and told "Why I Came to the Institute," and all lied about it. Kinny's lectures used to draw quite a crowd, too, where we were taught the best methods of committing suicide, short cuts in math., and the effects of exposing flies to various gases. We found the Probability of getting screwed at mid-years, the Chances we took by going to church socials, and the Combinations of girls one fellow might fuss without getting caught by the rest.

After the Christmas holidays came the mid-years, and the awful proposition we were up against was brought home for the first time. As we remember it, there was some studying done that week, in fact that is all we did do. There were a few who got the axe just to cheer on the rest of us, and besides it isn't good policy to kill the "geese" that lay the golden eggs.

Then came the Descript. and Trig.; we prayed over them, at least some did, for they were Freshmen then, and the rest cursed, but neither did much good. In Trig. we thought and didn't use our pencils, and in Descript. we used our pencils and didn't think, and we got stung both ways.



1904.—"MANY ARE CALLED."

Spring brought baseball, canoeing, afternoon cuts, evening studies of the higher things in life, and more E's. We cut Dutch and English vigorously, shop when we could without being sick too often, and some of the other studies we do not remember of having at all. Then home again at Easter to see the folks again and the girls to whom we had been so true. But all this love in spring-time was just a calm before the storm which came in June, 1905, and lasted five days. When it blew over, there were few mouths whose corners turned up, and we all began thinking we would like a steady job. The expectations of a few were fully realized, but most of us received a little "Per Order" and were informed that we had been advanced just thirty minutes over the 4.30 of last September.

Sophomore Year

It was a merry day for "we uns" when we graduated from kilts into knee trousers. No longer did we have to be dictated to by the upper classes, but rather might we manifest our advanced age and authority by showing the new babies how to do things; and well we did it, too. It was an awful hard job, though, as they were the most ornery bunch of mules to break in that we ever tackled. My! but what a verdant bunch those Freshmen were. Their greenness was so apparent that it stuck out all over them in bunches. We couldn't help but pity them, though, so of course we had to show our superiority and learning by helping them find the way to the different recitations, and, by the way, to church socials. Of course it was no fault of ours that there happened to be a whole bunch of us there to greet them as they came out and to accompany them to their homes. Naturally, taking advantage of our opportunities, and to repay us for the many troubles we had taken, we made them show their accomplishments in the dancing and singing line.

They were a poor bunch of singers, or at least we thought so, because we did so well along that line the year before that their vain attempts seemed like mere howling beside of what we were accustomed to. Perhaps they were too scared to sing as well as they could. They could dance pretty well, but were a bit stiff and awkward at first. But this wore off soon under our good instructions. They were able to yell for 1908 pretty well before we got through with them.

Honestly, that crowd worried us. It didn't seem as if we would get their heads down to normal. It took a long time to beat it out of them in football, but we proudly sat on them before we got through. In the cross-



1908.—"FEWER ARE CHOSEN."

country runs we simply had to win, because we didn't get our name on the banner the year before, as we were all so bashful about coming out; but when old 1908 undertakes to do a thing she usually does it, so of course we easily won them and got our name in big gold letters on the banner. Then in the inter-class track meet in the spring! Well, that was a regular walk-away from the whole school. Our grandfathers, the Seniors, were the only ones that gave us a rub at all, and they only got about half of the number of points that we accumulated.

As for baseball—we like to forget about that, because through some misunderstanding of the management as to the date, five of our fellows were off with the Varsity. So they took up what Sophomores they could find and picked the rest out of the crowd, and played them, and gave them a rub at that. Of course they beat us, not because the fellows didn't play the best they could, but they were all there and we were not. It didn't seem enough of a victory to crow over and get a big head, but we can excuse them, as they were probably so glad to get one on 1908 that their pleasure must have all gone to their heads. They deserve a little credit, though, as they had by this time grown into quite husky individuals under our good training.

In other things besides athletics we were equally good, if not better. Better along the matrimonial line, at any rate. With Barnes already married during the previous summer, and Bill Baker to be married during the next summer, and Carleton looking as though he would like to be like the dickens and couldn't, and with Boutelle and Lawley and Lowe (but, hush! it isn't supposed to be known yet!), we had a bunch that none of the other classes could touch. Perhaps that is why we steadied down so in our later years. There is nothing like a few married men to hold us down. However, we showed our abilities in all lines that year, athletic and otherwise, except railroad curves. Bill Stout said that we were a gang of dubs in that. We won't blame Bill for that, though. He kind of had a grudge against us—of course we don't know why, but he did.

We had a Sophomore banquet, too, and every one of us was there. The other classes knew nothing about it until it was well started, and then it was too late for them to do anything. They threw a few eggs after it was all over, but they got sick of it after they saw how big a bunch we had. Bill Baker was toastmaster, and he made a dandy, too. This was before Bill was married and could talk like the dickens. Too bad, Bill seems to have grown quieter since he got hitched. Perhaps he does all his talking to Bill, Jr., while he is walking the floor nights. He is getting back his vocabulary now, though, since he has been partner with "Hoppy" on thesis.

It was the Sophomore year, too, that Coolidge and a few others made their debut. Again we mourned the loss of quite a bunch of our members

after the exams. Some of them went to other colleges, and others were advised to withdraw from the Institute, or to become members of 1909. What a punishment! I suppose the Faculty did the best they knew how, because 1908 was a pretty swift bunch and the fellows had to work like the dickens to keep up. We had six men on the baseball team that year, and about the same number on the football team. It showed the school where they had to look for their athletics. We sure were mighty sorry when we had to graduate into the Junior year, although it was one more step nearer the goal that we were all working for. There was always a heap of satisfaction to us to play the part of the big brother to the Freshman and rub it in a little bit. We watched the Seniors graduate and envied them, but we cheered up with the thought that we would be there some day, and again take the precedence and show the school the proper way to graduate. Well so long! dear old Sophomore year, that year of years!

Junior Year

As we started on our third lap we found that quite a number who entered in the race with us as Freshmen failed to show up as Juniors. Short-windedness overtook many of them, so we had only eighty-seven to count on.

Our "Half-way-thro' " Banquet was planned, and arrangements made before the end of our Sophomore year to have our feed the first night after our return in the fall. But some unsuspecting wooer must have told his affinity of our plans, for when we did return it was known all over the Hill that our banquet was to take place that night. So it had to be postponed. Within the month, however, news was spread among us to "meet at the Bay State House this evening between 6 and 9."

By 9 o'clock we had all assembled and our sport soon commenced in earnest. So far, nothing had been heard of the other classes, but after we had "fed our faces" and our heart-rending and blood-curdling speeches had begun, a shout was heard outside and the swish and splash of a few ripe eggs finding their way through the partly open windows and streaming down the elegant lace curtains. But this didn't bother us—not the class of '08! So we closed the windows and continued with our jollification. Nor did we shrink when we heard that five hundred anxious students, armed with eggs and other vegetables, surrounded the place. Word was sent in at about 1 o'clock that a squad of Worcester's finest were ready to protect us if we would only break up then. But not us! When we had finished

and had supplied ourselves with a goodly stock of appropriate missiles, and had arranged our toilet, we sallied forth. There wasn't much doing until we reached Lincoln Square. Here there was a general mix-up and the air was filled with eggs. But it wasn't long before '08 was ahead and had a vantage point on Highland Street Hill. A little rush and a few more eggs, and we moved to Boynton Street. On that nice grassy plot opposite the Institute we gave the Freshies and Sophs three of the swiftest rushes ever. And so '08 upheld her reputation as being the only class on the Hill worthy of recognition.

Things moved along smoothly until mid-years, when we were so unfortunate as to lose some more of our number. "Dingtoe," with his kinematics, and "Jinny," with economics, kept us guessing some, while "Duff" gave us opportunity for excellent practice with the slide-rule, doing physics lab. experiments in our rooms.

The second half differed but little from the first, excepting that we had more practice with the slide-rule. Our Junior Prom was a decided success, as those who attended will testify. In the athletic events '08 still held her own, showing up as well on the track and at baseball as she had done in other athletic lines in the first half.

Senior Year

At last the long-looked-for time has come when we may wear a stiff hat or a white collar without exciting any considerable comment; we are indeed Seniors. Specialization has begun and we find the breach between divisions wider than ever. The electrics are closely confined to the "car-barn"; the mechanics have retired into the greasy labyrinths of their department; the civils are content in their corner of Boynton Hall, and the chemists and general scientists seldom venture from the vile smelling lab and dungeons of Salisbury Lab. But in spite of this we occasionally assemble for class meetings; and such meetings!—a request for action on some important question, a half hour of impassioned oratory, and—a motion to adjourn. As a drawing card for one of these meetings, Dr. Engler was announced and gave us an informal talk in regard to some of the plans of the corporation; and while, to be sure, they were only plans, at the same time we could not help feeling at the end of the talk that we were a little closer to the head of the Institute and its executive board.

This year financial disaster stared our athletic association in the face when the prospects were brightest, and it is an honor to the school to recall the prompt action of the student body to remove this embarrassment, although a more general payment of dues earlier in the year would have been commendable.

Besides the various subjects assigned us for study this year, we have been treated to a series of lectures sprinkled throughout the year in which our abilities have been somewhat disparagingly compared with those of the Class of 1907. For a time these lectures were interesting and instructive, but finally the subject became exhausted; but the lectures continued until they became, to say the least, uninteresting.

Thesis appears on the schedule, and under the protecting cloak of its fifteen or twenty hours a week we are able to devote considerable time to investigation along lines not strictly included under that general head.

We are now on the last month of our course on the Hill, and the coveted sheepskin is almost within our grasp; but, although our goal is almost reached, we cannot think of leaving Tech without a feeling of deepest regret. The work has been hard; almost, at times, to the point of drudgery, but for the most part it has been pleasant work and work which was fitting us for something better. We have made many friends in our class and among the Faculty, and as we sever our connection with the Institute many of these friendships are to become mere memories of the past. But however far we may go from Tech, let us preserve one tie, that which binds us to our Alma Mater, and when the Class of 1908 has been scattered to the four corners of the globe, may we all continue loyal sons of Tech.

Dan O'Regan—"Mr. Smith, can you name a salt?"

Smith (after some hesitancy)—"Sodium chloride."

Dannie—"Well, Smith, did you ever see any sodium chloride?"

Smith (after more deliberation)—"No, sir; ah, that is, not that I know of."

Fish (in mechanics)—"Judge, what did you see in the lesson which was interesting?"

Judge—"Nothing only the pictures."

Senior Class



Electrical Engineers

Harry F. Ammidown
George H. Anderson
Bradford B. Bingham
Ralph P. Clarkson
Roger E. Coolidge
William H. Cooper
William A. Darrah
Sumner A. Davis
Robert O. Dawson
Horace H. Field
Thorne Foster
Joseph Harris
Luther W. Hawley
Leon W. Hitchcock
Arden B. Holcomb
William Law
Albert A. Nims
Roland A. Packard
Joseph P. Regan
William D. Smith
Frederick A. Spencer
John G. Truesdell
J. Frank Williams, Jr.
Frank E. Wood
Yoshiho Yamada
Raymond L. Witham

Mechanical Engineers

Bernard R. Andrews
Alden W. Baldwin
Arthur F. Barnes
J. Eddy Chace
Ralph P. Champney
Erford W. Chesley
Robert T. Cole
Walter G. Cook
A. Frank Cottrell, Jr.
John C. Harvey
H. Clayton Kendall
George S. Langley
Walter H. Lathrop
Arthur L. Lewis
Frank E. Lowe
Morris H. Neal
Richard K. Newman
Wallace T. Roberts
Levi H. Sawin
Herbert P. Sawtell
Donald D. Simonds
Richmond W. Smith

Civil Engineers

William H. Baker
George J. Boutelle
John LeR. Brown
Herbert M. Carleton
Lyman F. Copeland
Royal W. Davenport
Frank A. Dorman
Philip F. Ellsworth
Robert S. Fiske
Frank T. Hopkins
Dumont P. Lamb
Byron L. Moore
Wallace C. Rogers
Walter E. R. Ronian
Philip J. Rowell
Benjamin F. Sargent, Jr.
David F. Stockbridge

Chemists

Henry W. Denny
Walter F. Lawley
Carlyle M. Nourse
George H. Ryan
William S. Sellars
Avery Smith
Earle K. Strachan
Luy Trott

General Science

Robert H. Goddard
Ray L. Stinchfield
John E. Woodbury

Psalm of Tech Life.

Tell me not in mournful numbers,
    Tech life is a happy dream,
For the man's no fool who slumbers;
    He's plugged hard all night on steam.

Tech is real! The profs. in earnest!
    But good marks are not our aim,
For if we should cram our hardest,
    They'd hand E's out just the same.

No enjoyment, lots of sorrow,
    If we still intend to stay
We must prep some for tomorrow—
    We were badly flunked to-day!

The lesson's long, but time is fleeting,
    Sling out questions and we'll see
If we can keep the prof. a-squeaking,
    Till the bell rings "twenty-three."

Trust not Future, howe'er pleasant!
    We've our lessons to be learned;
Work, work in the short-lived present
    And receive a D well earned.

Lives of some profs. oft remind us
    We can make our lives a crime,
And departing leave behind us
    Helpful cribs which once worked fine.

Let us then be up and doing
    With a heart for any fate;
And when troubles we see brewing
    Give three cheers for Nineteen-eight.



Class Officers

Freshman, First Term

R. S. Fiske, *President*
W. H. Baker, *Vice-president*
M. F. Locke, *Treasurer*
H. W. Bell, *Secretary*
F. P. Kurtz, *Sergeant-at-arms*

Freshman, Second Term

H. C. Kendall, *President*
R. H. Goddard, *Vice-president*
M. F. Locke, *Treasurer*
A. F. Cottrell, Jr., *Secretary*
W. F. Lawley, *Sergeant-at-arms*

Sophomore, First Term

W. H. Baker, *President*
L. W. Hitchcock, *Vice-president*
G. W. Woodward, *Treasurer*
R. H. Goddard, *Secretary*
A. F. Cottrell, Jr., *Sergeant-at-arms*

Sophomore, Second Term

R. H. Goddard, *President*
L. W. Hitchcock, *Vice-president*
W. H. Baker, *Treasurer*
H. C. Kendall, *Secretary*
Y. Yamada, *Sergeant-at-arms*
V. Cobb, *Historian*

Junior, First Term

R. T. Cole, *President*
P. J. Rowell, *Vice-president*
W. H. Ticknor, *Treasurer*
F. A. Spencer, *Secretary*
F. T. Hopkins, *Sergeant-at-arms*

Junior, Second Term

A. F. Cottrell, Jr., *President*
L. W. Hitchcock, *Vice-president*
H. C. Kendall, *Treasurer*
R. A. Packard, *Secretary*
F. T. Hopkins, *Sergeant-at-arms*

Senior, First Term

P. J. Rowell, *President*
L. W. Hitchcock, *Vice-president*
H. C. Kendall, *Treasurer*
T. Foster, *Secretary*
H. F. Ammidown, *Sergeant-at-arms*

Senior, Second Term

H. C. Kendall, *President*
H. M. Carleton, *Vice-president*
H. C. Kendall, *Treasurer*
R. T. Cole, *Secretary*
Y. Yamada, *Sergeant-at-arms*



Football

A. W. Baldwin
E. W. Chesley
R. P. Clarkson *
A. F. Cottrell, Jr.
W. F. Lawley
H. P. Sawtell

Baseball

R. T. Cole
R. E. Coolidge *
W. H. Cooper
A. F. Cottrell, Jr.
L. W. Hitchcock
P. J. Rowell

Basketball

R. P. Champney *
H. W. Denny *
W. Law
W. F. Lawley

Track

H. M. Carleton
E. W. Chesley
S. A. Davis
P. H. Ellsworth
B. F. Sargent, Jr.
D. D. Simonds
J. F. Williams *

* Manager of Team.

JUNIOR PROM



With the success of the "Half-way Thro'" still in mind a class meeting was called in early December to decide upon the advisability of having a Junior "prom." "Shall we have a 'prom'?" was the motion put before the class by the President. "Yes," was the vote of eighty voices. "Will the class stand back of the committee?" "Yes," replied the same voices. So it was with this spirit that the class started to plan for their "prom."

The committee, made up of five of the most energetic and enthusiastic members of the class, were appointed, and it was soon learned that they had decided to hold the "prom" in Terpsichorean Hall, April 8, 1907. The long interval of waiting for *the evening* was taken up by hard work on the part of the committee and pleasant corresponding and planning on the part of the interested members of the class. Things said and written during that interval have never as yet been wholly known, but many a story has never been denied.

At last the night came around and every one wondered why the moon did not shine; the streets were so deserted; the interviewing reporter remained within his office; the street lights seemed so dim—it was raining! This made no difference to those who intended to come, so at 8 o'clock the patrons and patronesses were ushered into a hall very handsomely decorated with potted palms and flowers and the ever-present college banner. Shortly after, Seniors and Juniors, invariably accompanying ladies, began to appear, and after being introduced to the patrons and patronesses by members of the committee, some promenaded, while others, more easily satisfied, occupied the smaller rooms and cozy corners, which were all prettily decorated.

Every one can imagine the ordeal passed through until the second part of the programme was begun, but still, many a pleasant acquaintance was made as well as many an old one renewed. A little before 9 o'clock the strains of the "Palm Limited" came from the orchestra, which has the faculty of making every one forget the past and the future and think only of the present, namely—the partner and the dance. Such music as "Absinthe Frappé," "La Sorella," "Southern Dream," "Bullfrog and the Coon" and "Sing Me to Sleep" made each and every one a different individual, and when the intermission was announced some seemed to begrudge a few minutes of rest and refreshment.

It is not necessary to give in detail the success of this part of the programme, for it was one babble of voices and suppressed laughter from the beginning to the end—a true indication of an enjoyable time.

When the orchestra burst forth with "Gallant Boys," everybody was again in the atmosphere of dancing, and not until the last moment did any one deem it necessary to call his cab from the excuse of being bored or tired. During the second half, the moonlight dances and the dreamy waltzes seemed to have the desired effect, but still there were enough light-hearted ones left of these few who thought too hard about things far out of place at such a function as they were enjoying. This frame of mind was all forgotten when a mighty "P. I." was given near the end. At "Home, Sweet Home" all were of one mind: "A grand success, 1908! You have done yourself proud!"

At 1 o'clock the rumbling of the cabs and carriages indicated that the Junior "prom" of the Class of 1908 was only a pleasing memory, and that from that time on the occasion would be referred to as one of the most delightful and successful events ever carried out by any class at the Institute.

Committee

B. F. Sargent, *Chairman,* R. A. Packard, M. H. Neal,
H. W. Denny, F. E. Lowe.

Patrons and Patronesses

Dr. and Mrs. Edmund A. Engler, Prof. and Mrs. Harold B. Smith,
Prof. Zelotes W. Coombs and Miss Coombs,
Prof. and Mrs. Charles M. Allen.

DANCES

1 *Two-step*—"Palm Limited".....
2 *Waltz*—"Sweetheart" .....
3 *Two-step*—"Humming Bird".....
4 *Waltz*—"Absinthe Frappé".....
5 *Schottische*—"You're Just the Girl I'm Looking for".....
6 *Two-step*—"Dixie Blossoms".....
7 *Waltz*—"Love Me and the World is Mine".....
8 *Two-step*—"Steel King".....
9 *Waltz*—"Kiss of Spring".....
10 *Schottische*—"I know a Girl Like You"
11 *Two-step*—"La Sorella".....
12 *Waltz*—"Southern Dream".....
13 *Two-step*—"Idaho".....
14 *Waltz*—"Blue Danube".....
15 *Two-step*—"Gallant Boys".....
16 *Waltz*—"Dutch Colleen".....
17 *Two-step*—"Madeline" .....
18 *Waltz*—"Mlle. Modiste".....
19 *Schottische*—"Automobile" .....
20 *Two-step*—"National Emblem".....
21 *Waltz*—"Good-bye, Sweetheart"....
22 *Two-step*—"Arrah Wannah".....
23 *Waltz*—"Shadows on the Hearth"..
24 *Schottische*—"Bullfrog and the Coon"
25 *Two-step*—"Dawn of Century".....
26 *Waltz*—"Symposia".....
27 *Two-step*—"Mississippi Miss".....
28 *Waltz*—"Sing Me to Sleep".....



It was not until the spring of our Sophomore year that our first banquet came off. The Freshman banquet was given up after long and heated debate and the funds turned over to the athletic association to relieve a temporary embarrassment, but this delay only served to increase the pent-up enthusiasm that was let loose on that memorable night in April, 1906.

In accordance with the natural modesty of '08, the crowd arrived at the old Bay State House by side streets and alleys with as little display as possible and proceeded to devour all the eatables that were provided. After the inner man had been sated, the class fully awoke to the spirit of the occasion with Bill Baker as chief hot-air artist, and then pandemonium broke loose. Cheers and songs resounded through the big banquet hall, and during the pauses for breath some silver-tongued orator of the class could be heard babbling out his carefully prepared oration.

As a tribute to the class, the other classes gathered in a body beneath the windows of the banquet hall in the rain and slush to aid in making the occasion one which we should not soon forget; but, although touched by the spirit that prompted them thus to honor us, we were somewhat disappointed to find, at the end of the orgy, that they were not still waiting for us to express more fittingly our appreciation. Once on the street, we felt it incumbent upon us to notify the residents of our presence, and we proceeded to do so with such vigor that we even aroused the trusty guardians of the peace from their cozy doorways to behold the return of the Class of '08 from its first grand spree.

Our Sophomore Banquet

BAY STATE HOUSE, WORCESTER, MASS.

Toasts

Toastmaster, William H. Baker.

CLASS OF 1908,	Robert H. Goddard.
THE FACULTY,	H. Clayton Kendall.
H_2S,	Luy Trott.
BASKETBALL,	Leon W. Hitchcock.
HOT AIR,	Roger E. Coolidge.
FOOTBALL,	Walter F. Lawley.
THE NEW BABY,	William H. Ticknor.
BASEBALL,	Oscar M. Solberg.
THE FAIR SEX,	George J. Boutelle.
LEGGS,	Frank E. Lowe.

Henry W. Denny at the piano.

Committee

George W. Woodward,
Philip J. Rowell,
W. Denholm Smith.
William S. Sellars.

At the Prom

"A maid, a man,
An open fan,
A seat upon a chair.
A stolen kiss,
Six weeks of bliss,
And forty years of care."

Half-Way Through

After innumerable false alarms due to brain-storm of over-zealous members of the other classes, the class quietly assembled at the "Old Bay State" one night in September, 1906, to celebrate in proper style the fact that most of us were on the last half of our course at Tech. Word was passed around during the afternoon as to the place of meeting and each individual was under orders to report at a different time, the whole schedule being so cleverly arranged that no member was detained by the other classes.

At 10 o'clock all were prepared to descend on the banquet hall when a decrepit old Jew emerged from the crowd of outsiders at the entrance, removed his wig and beard, and—presto, Luy Trott. A church supper had proved irresistible, and the disguise had been necessary to enable him further to outwit the less privileged of our schoolmates, who were now fully aroused by the ease with which we had eluded them earlier in the evening.

We then proceeded to torture our digestive apparatus with a bewildering array of viands which even rivalled the elaborate menus at Newton Hall, while songs and cheers shook the walls and knocks of the sledge-hammer variety were handed out indiscriminately. When the *chef* finally refused to serve any longer, George Boutelle, the toastmaster of the evening, assumed charge, and in his most happy vein introduced the speakers of the evening. Not a class, prof or instructor escaped unscathed; but no matter what subject the speaker was assigned, each in turn paid to the Class of 1908 the tribute of being the only class on the Hill. Even Strach agreed to that.

Suddenly, in the midst of the gaiety, a police officer appeared at the door, surrounded by a lusty guard, and in a timid voice asked if we would not please go home, as it was bed-time for most of the cops and they wanted to go home. This was scarcely in accord with our plan, however, and they were granted permission to go, but we gently but firmly refused. More speeches followed this little discussion, and who of us will ever forget that stirring little impromptu made by our friend and classmate from the land of the chrysanthemum?

But all things must come to an end and with a final "milk shake" that woke every one in the house, our "Half-way-Through" had become history, and we were brought to a sudden realization of the fact that it was 2 o'clock in the morning, and that outside we were awaited by two hundred Tech men armed with eggs. A collection was quickly taken and,

with a little application for the itching palm of a bell-boy, the night lunch-wagons were speedily raided and we found ourselves in possession of all the eggs obtainable in the city. Our two old gridiron heroes, Fred Lawley and "Dutch," were put in charge of the crowd, with "Sis Hopkins" as self-appointed assistant and, with clothing inside out, we sallied forth in perfect order, prepared to do or die. We were greeted with yells and a few eggs and, with a good cheer of defiance, we marched down Main Street to Lincoln Square. Here a general mix-up ensued between 1908 on one side and all the rest of Tech on the other, with a crowd of unsuspecting police between. The battle raged all over the square and finally 1908 emerged triumphant, although somewhat the worse for wear and dripping with eggs.

After a consultation among the leaders it was agreed to settle the whole affair by a grand rush, and so we marched to the vacant lot on Highland Street. Three mad rushes followed and in these we were again victorious, and victors and defeated joined in one resounding cheer for 1908, the class of the hour.

We then repaired to Prexy's house. Although it was nearly time for him to be up, he refused to appear, and we all wended our way homeward to remove some of the signs of conflict, and then we hustled up on the Hill to hear one poor misguided prof inform us that "every egg that was thrown hit the Institute square in the face." Our landladies could have told him better than that.

Half-Way Through Banquet

BAY STATE HOUSE, WORCESTER, MASS.

Toasts

Toastmaster, George J. Boutelle.

HALF-WAY THRO',	Robert H. Goddard.
OUR WIVES AND SWEETHEARTS,	Frank E. Lowe.
THE FACULTY,	Earle K. Strachan.
TECH FUSSING,	Benjamin F. Sargent.
ATHLETICS,	Leon W. Hitchcock.

Booze,	Henry H. Hay.
This Rube Town,	Thorne Foster.
Rough House,	Walter F. Lawley.
Physics,	Philip J. Rowell.
Those Letters from Home,	Arden B. Holcomb.

Henry W. Denny at the piano.

Committee

Willam S. Sellars,
H. Clayton Kendall,
William H. Cooper,
William H. Ticknor.

"My opinion of text-books in an exam is equivalent to lost head."—*Charlie Allen.*

"An exam in mechanics is no church social."—*Fish.*

Heard in the Mechanics Lab.

"Davy" in "Gas":—

"You'll always find that people don't give a ——— !!!" (great burst of laughter). "Well, you fellows evidently didn't have the same idea in your minds that I did."

"Charley" in hydraulics (the same morning as the above)—:

"If a man is pushing on the water with a force of thirty-three pounds, how in —— !!!" After the laughter, he said, "Well, I didn't say it, anyway."

The above show that these two in the department, at least, make use of "Charley's" rule—to say what they "D. P."; that is, what they "deem prudent."

St. Peter of Tech

A Senior at Tech sat plugging one night
At some difficult problems he couldn't get right.
It was long after people had gone off to bed—
All except Tech men, I ought to have said.
Discouraged and tired, the lad worked away,
As he cursed his bum luck—for he'd flunked twice that day;
When suddenly o'er him a numbness 'gan creep,
And before he knew it he'd fallen asleep.
And there as he lay, a picture did seem
To come to him as out of a dream.
He dreamt that he had grown old and gray,
And misfortunes had always kept coming his way.
He had flunked from Tech ere his course was ended—
Indeed, for a mere trifle he was suspended.
His troubles began when a prof, with a sneer,
Said he'd never make good as an engineer.
His life at best a failure had been,
And he was only too glad when, at three score and ten,
He read on the tombstone over his grave:
"Here lies the body of a trusty knave
Who once went to Tech, a learning to get,
But, sad to relate, he's seeking it yet."
Then quickly things earthly began to grow dim,
And a side view of heaven was open to him.
He stood there in awe and in surprise,
For old Boynton Hall had greeted his eyes.
In fact. the whole image of Tech was there.
With the students and profs. flying around in the air.
His idea of heaven had been anything but this;
For he'd thought it a place of pure rest and sweet bliss.
The sight there before him held him in awe,
For he couldn't quite comprehend all that he saw.
And he said to himself: "Here's a deuce of a fix,
Would I were with Reddy down by the Styx;"
But as he plodded along his spirits did rise,
As a new sight suddenly greeted his eyes.
He saw all his classmates come pouring out
From the shops,—even "Hoppy" was there, yes, even Bill Stout.
Everybody was happy, everyone seemed gay.
"How different," he thought, "were these things in his day."
But he went up the hill and opened the door,
To find before him a hundred or more
Applicants to heaven awaiting their fate,
To see if St. Peter would open the gate.
At last came his turn to ask the great man

Permission to enter his heavenly clan.
At the door was an angel, long and lean,
The image of J. K., it was easily seen.
"Your business, old man?" he promptly cried,
"To see St. Peter," the old man replied.
"It's too early now, you must wait for a while,
His hours are eleven to one," he said with a smile.
So the old man turned back to again wait his turn
To see St. Peter, and thus his fate learn.
At last he was permitted to see this great reverence
And he was finally admitted to his honor's presence.
St. Peter was a short, stout man, with a short, stubby neck—
In fact a perfect picture of the President of Tech.
He said, "I've looked over the books and found your name,
And there find nothing of note or worthy of fame.
Pray, tell me on what do you ask admission
To heaven." "On three years at Tech, do I ask permission."
St. Peter spoke up with a tone of sorrow,
"Your case is doubtful, but the gods meet tomorrow
And your petition before them I surely will cite,
To see if enough we can bring to light
On your good deeds, to allow me to open the gate,
And thereby insure your eternal fate.
That is all," said St. Peter, with a flourish of keys,
And the applicant awaited the result of his pleas.
The next day, in truth, all the gods did meet
To settle affairs in this heavenly seat.
There was Johnnie Sinclair with his hair long and white,
And Coombs with his manner so quick and bright,
And Connie with a smile and his little round cap,
And Kinny, besides, with Kelpie in his lap.
And Prof. French and Bird and all the rest—
The old Tech Faculty at its best.
The meeting over, came the old man once more
To learn the fate that for him was in store.
He looked in the letter-box as of old, with care,
And surely enough a blue envelope was there.
On the blue slip inside were written these words:
"The gods have met and your plea presented,
It grieves us to say, Petition not accepted!"
Disappointed, downcast, tired and sore,
The old man set out for the Stygian shore.
Here he happened upon a few that he knew,
Such as "Pa," and "Ding Toe"—even "Reddy Bits," too,
Who were getting tortured the same old way
They had tortured us on a former day.
But when he was ready his tortures to bear,
He awoke, and looked at the clock on the stair;
At a quarter of four the hands were set,

Three hours gone and four lessons to get!
So, young students and friends at this beloved school,
The moral of this is: The man is a fool
Who thinks he can go to Tech and still sleep,
For sleep at a distance you surely must keep.
No matter how horribly you may be tired,
If you do any sleeping at Tech, you'll get fired.



INSTITUTE PARK, 1908.



Concrete Notes.—Mr. D. F. Stockbridge has got out a patent for making false teeth out of reinforced concrete. Rosenfeld quick setting cement is used so that the patient need not go without eating for more than two weeks before the forms are removed.

Kinny—"The amount of water per capita in Europe is not nearly so great as in America. Now what is the reason for this?"

Sellars—"They drink more beer over there."

All athletics at the Institute are bounded by the Faculty on the north, by lack of funds on the south, by lack of time on the east, and by no facilities on the west. Where will athletics at the Institute land?

A Freshman's Nightmare

Gee, I would not a civil be,
They have to work too hard for me.
Papa thinks a mechanic I might make,
But I hate shop, so that I will not take.
The electric course I think is punk,
And I won't take that 'cause I'd be sure and flunk.
As for the chemists they have a cinch,
So I might take that one on a pinch.
But I guess I'd better take Duff's tip.
And sign the general science slip.


FRATERNITIES
1908
Leary



SIGMA ALPHA EPSILON HOUSE


ΦΙΑΛΦΑ
ΣΙΓΜΑ ΑΛΦΑ ΕΨΙΛΟΝ

Sigma Alpha Epsilon Fraternity

Massachusetts Delta Chapter

Established March 10, 1894.

ACTIVE MEMBERS.

1908

George Jenks Boutelle
Abraham Franklin Cottrell, Jr.
Henry Wadhams Denny
Philip Fowler Ellsworth
Robert Hutchins Goddard
Walter Fred Lawley
Benjamin Franklin Sargent, Jr.

1909

Howard Withy Bell
Joseph Francis Callahan
Frederick Francis Chapman
Robert William Crowther
Charles Adams Lewis
Harry Richard Lewis
Raymond Samuel Squire

1910

Harold William Burdett
Edward Reynolds Downe
Robert Fulton Gifford
Lewis Stanwood Hooper
Clarence Grover Pease
Frank Lamb Root
Claude Bertram Thomas
George Richard Wholean
Nelson Wing

1911

Philip Howell Brakely
Howland Starkweather Brown
Claude Moulton Goodrich
Arthur Warner Hood
Horace Zebina Landon
James Arthur Patch
Joseph Andrew Payette
Walter Marcus Towne

Sigma Alpha Epsilon Fraternity

Founded 1856

Roll of Chapters

Province Alpha	Maine Alpha,	University of Maine
	Massachusetts Beta Upsilon,	Boston University
	Massachusetts Iota Tau,	Massachusetts Institute of Technology
	Massachusetts Gamma,	Harvard University
	Massachusetts Delta,	Worcester Polytechnic Institute
	New Hampshire Alpha,	Dartmouth College
Province Beta	New York Alpha,	Cornell University
	New York Mu,	Columbia University
	New York Sigma Phi,	St. Stephen College
	New York Delta,	Syracuse University
	Pennsylvania Omega,	Allegheny College
	Pennsylvania Phi,	Dickinson College
	Pennsylvania Alpha Zeta,	Pennsylvania State College
	Pennsylvania Zeta,	Bucknell University
	Pennsylvania Delta,	Gettysburg College
	Pennsylvania Theta,	University of Pennsylvania
Province Gamma	Washington City Rho,	George Washington University
	Virginia Omicron,	University Virginia
	Virginia Sigma,	Washington and Lee University
	North Carolina Xi,	University of North Carolina
	North Carolina Theta,	Davidson College
	South Carolina Gamma,	Wofford College
Province Delta	Michigan Iota Beta,	University of Michigan
	Michigan Alpha,	Adrian College
	Ohio Sigma,	Mt. Union College
	Ohio Delta,	Ohio Wesleyan University
	Ohio Epsilon,	University of Cincinnati
	Ohio Theta,	Ohio State University
	Ohio Rho,	Case School of Science
	Indiana Alpha,	Franklin College
	Indiana Beta,	Purdue University
	Indiana Gamma,	University of Indiana
	Illinois Psi Omega,	Northwestern University
	Illinois Beta,	University of Illinois
	Illinois Theta,	University of Chicago
	Minnesota Alpha,	University of Minnesota
	Wisconsin Alpha,	University of Wisconsin

Province Epsilon	Georgia Beta,	University of Georgia
	Georgia Psi,	Mercer University
	Georgia Epsilon,	Emory College
	Georgia Phi,	Georgia School of Technology
	Alabama Iota,	Southern University
	Alabama Mu,	University of Alabama
	Alabama Alpha Mu,	Alabama Polytechnic Institute
Province Zeta	Missouri Alpha,	University of Missouri
	Missouri Beta,	Washington University
	Nebraska Lambda Pi,	University of Nebraska
	Arkansas Alpha Upsilon,	University of Arkansas
	Kansas Alpha,	University of Kansas
	Iowa Beta,	University of Iowa
	Iowa Gamma,	Iowa State College
Province Eta	Colorado Chi,	University of Colorado
	Colorado Zeta,	University of Denver
	Colorado Lambda,	Colorado School of Mines
	California Alpha,	Leland Stanford, Jr., University
	California Beta,	University of California
	Washington Alpha,	University of Washington
Province Theta	Louisiana Upsilon,	Louisiana State University
	Louisiana Tau Epsilon,	Tulane University
	Mississippi Gamma,	University of Mississippi
	Texas Rho,	University of Texas
Province Iota	Kentucky Kappa,	Central University
	Kentucky Iota,	Bethel College
	Kentucky Epsilon,	Kentucky State College
	Tennessee Zeta,	Southwestern Presbyterian University
	Tennessee Lambda,	Cumberland University
	Tennessee Nu,	Vanderbilt University
	Tennessee Kappa,	University of Tennessee
	Tennessee Omega,	University of the South
	Tennessee Eta,	Union University

"Truth is tough, but wholesome."—Three conditions.

But truly great the man, a conqueror he, who over least squares obtains the mastery.

"Honest toward men, and gentle toward women."—*Connie.*

Labor to keep alive in your breast that little spark of celestial fire called—Tech spirit.



PHI GAMMA DELTA HOUSE.


Φιλοτης ΓΛΥΚΥτατη Δυναστεια

Phi Gamma Delta.

Entered Worcester Polytechnic Institute Nov. 20, 1891.

Pi Iota Chapter.

Chapter Roll.

SENIORS

Harry E. Ballard
J. Le Roy Brown
Erford W. Chesley
Robert O. Dawson
Frank A. Dorman
Horace H. Field
Arthur L. Lewis
Frank E. Lowe
Philip J. Rowell

SOPHOMORES

Karl E. Herrick
Harry L. McGregory
Whitney S. Porter
James F. Thompson
Harold E. Waring
William J. R. Weir
Chester E. Wing
Albert L. Worthen

JUNIORS

Arthur Greenwood
Harvey C. Irving
Clifton G. Spaulding
Ralph E. Toucey
Carl W. Wheelock

FRESHMEN

E. Donald Beach
Charles F. Goodrich
Warren B. King
Richard Sanderson
Alanson E. Stewart

Phi Gamma Delta

Founded at Washington and Jefferson, May 1, 1848

Directory of Chapters of the Fraternity of Phi Gamma Delta

Graduate Chapters

Alpha, Lafayette, Ind.
Beta, Indianapolis, Ind.
Kappa, Chicago, Ill.
Xi, New York City.
Omicron, Pittsburg, Pa.
Tau, Denver, Col.
Chi, Toledo, Ohio.
Psi, Cincinnati, Ohio.
Seattle, Seattle, Wash.
Lincoln, Lincoln, Neb.
Lambda, Dayton, Ohio.
Delta Mu, Windsor, Ontario.
St. Joseph, St. Joseph, Mo.

Active Chapters

Section 1

Maine,	Omega Mu
Massachusetts Tech.,	Iota Mu
Worcester Tech.,	Pi Iota
Brown,	Pi Rho
Dartmouth,	Delta Nu
Amherst,	Alpha Chi

Section 2

Trinity,	Tau Alpha
Yale,	Nu Deuteron
Columbia,	Omega
New York,	Nu Epsilon

Section 3

Colgate,	Theta Psi
Cornell,	Kappa Nu
Union,	Chi
Syracuse,	Sigma Nu

Section 4

Pennsylvania,	Beta
Lafayette,	Sigma Deuteron
Lehigh,	Beta Chi
Hopkins,	Beta Mu

Section 5

Bucknell,	Delta
Gettysburg,	Xi
Pennsylvania State,	Gamma Phi

Section 6

Virginia,	Omicron
Washington and Lee,	Zeta Deuteron
Richmond,	Rho Chi

Section 7

Washington and Jefferson,	Alpha
Allegheny,	Pi
Wooster,	Rho Deuteron
Adelbert,	Xi Deuteron

Section 8

Denison,	Lambda Deuteron
Wittenberg,	Sigma
Ohio State,	Omicron Deuteron
Ohio Wesleyan,	Theta Deuteron

Section 9

Wabash,	Psi
De Pauw,	Lambda
Hanover,	Tau
Indiana,	Zeta
Purdue,	Lambda Iota

Section 10

Tennessee,	Kappa Alpha
Bethel,	Nu
Alabama,	Theta
Texas,	Tau Deuteron

Section 11

Illinois Wesleyan,	Alpha Deuteron
Knox,	Gamma Deuteron
Illinois,	Chi Iota
Michigan,	Alpha Phi
Wisconsin,	Mu
Minnesota,	Mu Sigma
Chicago,	Chi Upsilon

Section 12

William Jewell,	Zeta Phi
Missouri,	Chi Mu
Kansas,	Pi Deuteron
Nebraska,	Lambda Nu
Iowa State,	Alpha Iota

Section 13

California,	Delta Xi
Washington,	Sigma Tau
Stanford,	Lambda Sigma

Alpha Tau Omega Fraternity

Massachusetts Gamma Sigma, Instituted 1906

Joseph Dimock Williams
Sidney Woods Farnsworth
Roger DeLand French

Class of 1908.

Roger Earle Coolidge
Lyman Francis Copeland
Joseph Harris
Bernard Russell Andrews
Walter Edwin Reading Ronian
William Howard Baker
Thorne Foster

Class of 1909.

Ralph Edgar Perry
James Gordon Goodell
Joseph King Schofield
Myron Knight Sweet
George Luther Pierce, Jr.
Barrett Beard Russell, Jr.

Class of 1910.

Charles Whitney Morden
Howard Fowler Fritch
Henry William Sears, Jr.
James William Tabb, Jr.
Everett Bacon Collins
Francis Sylvestre Twomey
Frank William Jackson
Wallis Cowl Watson
Richard Christopher Lancaster

Class of 1911.

Leon Howard Sargent
Harold Russell Frizzell
Ervin Lawrence Winn
Robert Henry Wolcott

Alpha Tau Omega Fraternity

Founded at Virginia Military Institute, 1865

Roll of Chapters

	PROVINCE I	
Alabama Alpha Epsilon,	Alabama Polytechnic Institute,	1879
Alabama Beta Beta,	Southern Unversity,	1885
Alabama Beta Delta,	University of Alabama,	1885
Florida Alpha Omega,	University of Florida,	1884
Georgia Alpha Beta,	University of Georgia,	1878
Georgia Alpha Theta,	Emory College,	1881
Georgia Alpha Zeta,	Mercer University,	1880
Georgia Beta Iota,	Georgia School of Technology,	1888
Louisiana Beta Epsilon,	Tulane University,	1887
Texas Gamma Eta,	University of Texas,	1897
	PROVINCE II	
Illinois Gamma Zeta,	University of Illinois,	1895
Illinois Gamma Xi,	University of Chicago,	1904
Indiana Gamma Gamma,	Rose Polytechnic Institute,	1893
Indiana Gamma Omicron,	Purdue University,	1904
Michigan Alpha Mu,	Adrian College,	1881
Michigan Beta Kappa,	Hillsdale College,	1888
Michigan Beta Lambda,	University of Michigan,	1904
Michigan Beta Omicron,	Albion College,	1889
Wisconsin Gamma Tau,	University of Wisconsin,	1907
	PROVINCE III	
California Gamma Iota,	University of California,	1899
Colorado Gamma Lambda,	University of Colorado,	1901
Iowa Beta Alpha,	Simpson College,	1885
Iowa Gamma Upsilon,	Iowa State University,	1908
Kansas Gamma Mu,	University of Kansas,	1901
Minnesota Gamma Nu,	University of Minnesota,	1902
Missouri Gamma Rho,	University of Missouri,	1906
Nebraska Gamma Theta,	University of Nebraska,	1897
Washington Gamma Pi,	University of Washington,	1905
	PROVINCE IV	
Maine Beta Upsilon,	University of Maine,	1891
Maine Gamma Alpha,	Colby College,	1892
Massachusetts Gamma Beta,	Tufts College,	1892
Massachusetts Beta Gamma,	Massachusetts Institute of Technology,	1906
Massachusetts Gamma Sigma,	Worcester Polytechnic Institute,	1906
Rhode Island Gamma Delta,	Brown University,	1894
Vermont Beta Zeta,	University of Vermont,	1887


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	PROVINCE V	
New York Alpha Lambda,	Columbia University,	1881
New York Alpha Omicron,	St. Lawrence University,	1882
New York Beta Theta,	Cornell University,	1887
Pennsylvania Alpha Iota,	Muhlenberg College,	1881
Pennsylvania Alpha Pi,	Washington and Jefferson College,	1882
Pennsylvania Alpha Rho,	Lehigh University,	1882
Pennsylvania Alpha Upsilon,	Gettysburg College,	1882
Pennsylvania Tau,	University of Pennsylvania,	1881
	PROVINCE VI	
North Carolina Alpha Delta,	University of North Carolina,	1879
North Carolina Xi,	Trinity College,	1872
North Carolina Beta Xi,	College of Charleston,	1885
Virginia Beta,	Washington and Lee University,	1865
Virginia Delta,	University of Virginia,	1869
	PROVINCE VII	
Ohio Alpha Nu,	Mt. Union College,	1882
Ohio Beta Eta,	Ohio Wesleyan University,	1887
Ohio Alpha Psi,	Wittenberg College,	1883
Ohio Beta Mu,	Wooster University,	1888
Ohio Gamma Kappa,	Western Reserve University,	1901
Ohio Beta Omega,	Ohio State University,	1892
	PROVINCE VIII	
Tennessee Omega,	University of the South,	1887
Tennessee Alpha Tau,	Southwestern Presbyterian University,	1882
Tennessee Beta Pi,	Vanderbilt University,	1889
Tennessee Beta Tau,	Union University,	1890
Tennessee Pi,	University of Tennessee,	1876



Theta Chi Fraternity

Active Chapter

F. Monzon Aguirre
Kenneth R. Allen
Alden W. Baldwin
Stanley W. Barlow
Amos C. Bartlett
Ralph M. Cameron
Matthew R. Fish
Don A. Hamilton
Herbert V. Leckie
Arthur E. Luce
Timothy R. Lyons
Arthur C. Merrill
Samuel E. Nims
Stuart A. Nims
Walter A. Oleson
James A. O'Neil
Cyril B. Raymond
John A. Remon
Francis W. Roys
Hoxsie Y. Smith
Ray H. Taber
Charles B. Wagner

THETA CHI HOUSE—9 John Street


1904
ΘΧ
Ομτα Χ

Theta Chi Fraternity

Alumni Membership

George E. Acret
Robert W. Adams
H. Fay Baldwin
Joseph T. Butterfield
Robert D. Center
Leslie W. Cushman
Mark Eldredge
William Greve, Jr.
Harry N. Harding
Harry E. Harvey
Walter P. Ingham
Edward W. Kimball
Alberto Labrit
John E. Malone
Joseph W. McElroy
Clarence E. Merritt
Harry W. Osgood
George Pellissier
Manuel G. Rosado
Jose A. Rovelo
Robert K. Shattuck
J. Ernest Smith
Carl W. Stocks
Clarence E. Thompson
Jarvis Williams, Jr.

Pi Omega Pi Fraternity

62 Fruit Street

Very early in the school year of 1905, this fraternity was organized by a group of nine men, all of whom wore the Institute "W." One of these men left W. P. I. to enter West Point. With one other exception, every one of that first group has held the office of captain or manager of one of the Institute teams during his course at the Institute.

The object of the fraternity was, is, and forever shall be, primarily to foster clean athletics at the Worcester Polytechnic Institute. It is realized that one need not be a participant in athletic games in order to show his interest, but his presence at contests and his backing, financially and otherwise, are just as essential.

Members at the Institute

1908

William H. Cooper
Ralph P. Clarkson
Sumner A. Davis
Leon W. Hitchcock
H. Clayton Kendall
George S. Langley
Donald D. Simonds
Richmond W. Smith
Earle K. Strachan
Luy Trott

1909

Stuart M. Anson
Ernest L. Crouch
Frederic R. Ellis
Fred W. Fernald
Frank E. Hawkes
Howard T. Spaulding

1910

Carlyle A. Atherton
Walter P. Green
John N. Warren
Charles A. Pellett

1911

A. Leroy Atherton
Carleton M. Brown
Frank B. Smith


ΠΣΠ

Pi Omega Pi Fraternity

Graduate Members

1906

George R. Martin — Edward C. Merrill

1907

Percy M. Hall — Charles W. Powers
Fritz A. Hedberg — Clifton C. Quimby
Fred Peters — Wilbur C. Searle

Former Members of the Institute

1907

Harold W. Bye (withdrawn on account of poor health)

1908

Victor Cobb (at Harvard) — Oscar N. Solberg (at West Point)

1909

R. B. Childs (at Colorado College)

Delta Tau Fraternity

66 Park Avenue

Robert Titcomb Cole
Herbert MacMaster Carleton
Ralph Preston Champney
Frederick Asher Spencer
Jerome Willard Howe
Wallace Lester Flagg
Robert Edward Stewart Pope
Harry Thaddeus Lund
Leonard Woods Howell
Clinton Bagg Taylor
Carl Prescott James
Roland Alfred Packard
John Chapin Harvey
James Frank Williams
Wallace Thomas Roberts
Harold James Riley
Louis Lawrie Holmes
Charles Edward Barney
John Boyd Romer
William Irving Randall
Edward Owen Strong



SAMUEL WARD CO, BOSTON

Society of the Sigma Xi

Worcester Chapter

Established May 7, 1908

Members

Edmund A. Engler, Ph. D., LL.D.
Leonard P. Kinnicutt, S. D.
Levi L. Conant, Ph. D.
George H. Haynes, Ph. D.
Walter L. Jennings, Ph. D
Harold B. Smith, M. E
Arthur Willard French, C. E.
A. Wilmer Duff, D. Sc.
William W. Bird, S. B.
Alton L. Smith, M. S.
Charles M. Allen, M. S.
Joseph O. Phelon, M. M. E.
Albert S. Richey, B. M. E.
Arthur W. Ewell, Ph. D.
Howard Chapin Ives, C. E.
George R. Olshausen, M. E. Ph. D.
Frederic Bonnet, Jr., Ph. D.
Joseph D. Williams, Ph. B.

The object of this Society shall be to encourage original investigation in science, pure and applied; by meeting for the discussion of scientific subjects; by the publication of such scientific matter as may be deemed desirable; by establishing fraternal relations among investigators in the scientific centers; and by granting the privilege of membership to such students as have, during their college course, given special promise of future achievement.

Chapters

Brown University
Case School of Applied Science
Colorado State College
Columbia University
Cornell University
Leland Stanford University
Northwestern University
Ohio State University
Rensselaer Polytechnic Institute
Syracuse University
Union College
University of California
University of Chicago
University of Illinois
University of Indiana
University of Iowa
University of Kansas
University of Michigan
University of Minnesota
University of Nebraska
University of Missouri
University of Pennsylvania
University of Washington
University of Wisconsin
Worcester Polytechnic Institute
Yale University

Mechanics—Civils Football Game

The cut on the following page illustrates what happened as a preliminary to one of our exciting class meetings last fall. Jenks Boutelle said the civils were ready to play any time and on any field that had grass and goal posts. Dutch told him that the mechanics were willing to play on a stone heap and no goal posts. Results showed that goal posts were a bad thing for Boutelle.

The trouble was that the civils, having plenty of leisure, and not much to do anyway, became imbued with much Tech spirit and got up an eleven to give the Varsity some practice. They licked the Varsity, so they say (but nobody saw them do it), and then, looking for greater laurels, conceived the idea of having a go at the hard-working mechanics.



A Supporting Member of the Civil Line, "Hop"

The mechanics bit instantly and offered to play the civils for anything from fun to a class dinner. Well, after much hard talk and diligent practice (by the civils) the game was played November 23 at the Oval, with the Fresh-Soph game as a "preliminary."

Of the actual game, little is recalled of the technical details except that in the last five minutes of play, and after much good (?) football had been shown by both sides, the mechanics gradually rushed the ball down the field until Lewis was finally shoved over for the only touchdown. The civils kept falling down right in the way of everybody, or the mechanics would have got there sooner and oftener.

Lewis tried to kick the goal, but Boutelle got his face in the way, spoiled his beauty, damaged the ball and prevented a goal.

Of stars there was no end. Capt. "Dutch" essayed the role of quarter and played as though he were up against Holy Cross. The mechanics had heard much of the wonderful prowess of one Moore at guard, so he went out in about three minutes with a sprained ankle or a bent ear, the writer doesn't remember which; anyway he seized the excuse not to show up on the Hill for a week.

Boutelle attempted to negotiate one of his famous class-game quarterback runs, but Chesley was right in the way and stopped him principally with his (Chesley's) jaw. As a result, Chesley couldn't "close his jaw tackle" for a week, had to live on milk, Mellen's Food, etc., and lost his Thanksgiving dinner.

"Fat" Rogers was all over the field at once, especially when he fell down.

Jack Harvey cranked her up, advanced the spark a bit, and hustled Fat about so that he lost about ten pounds.

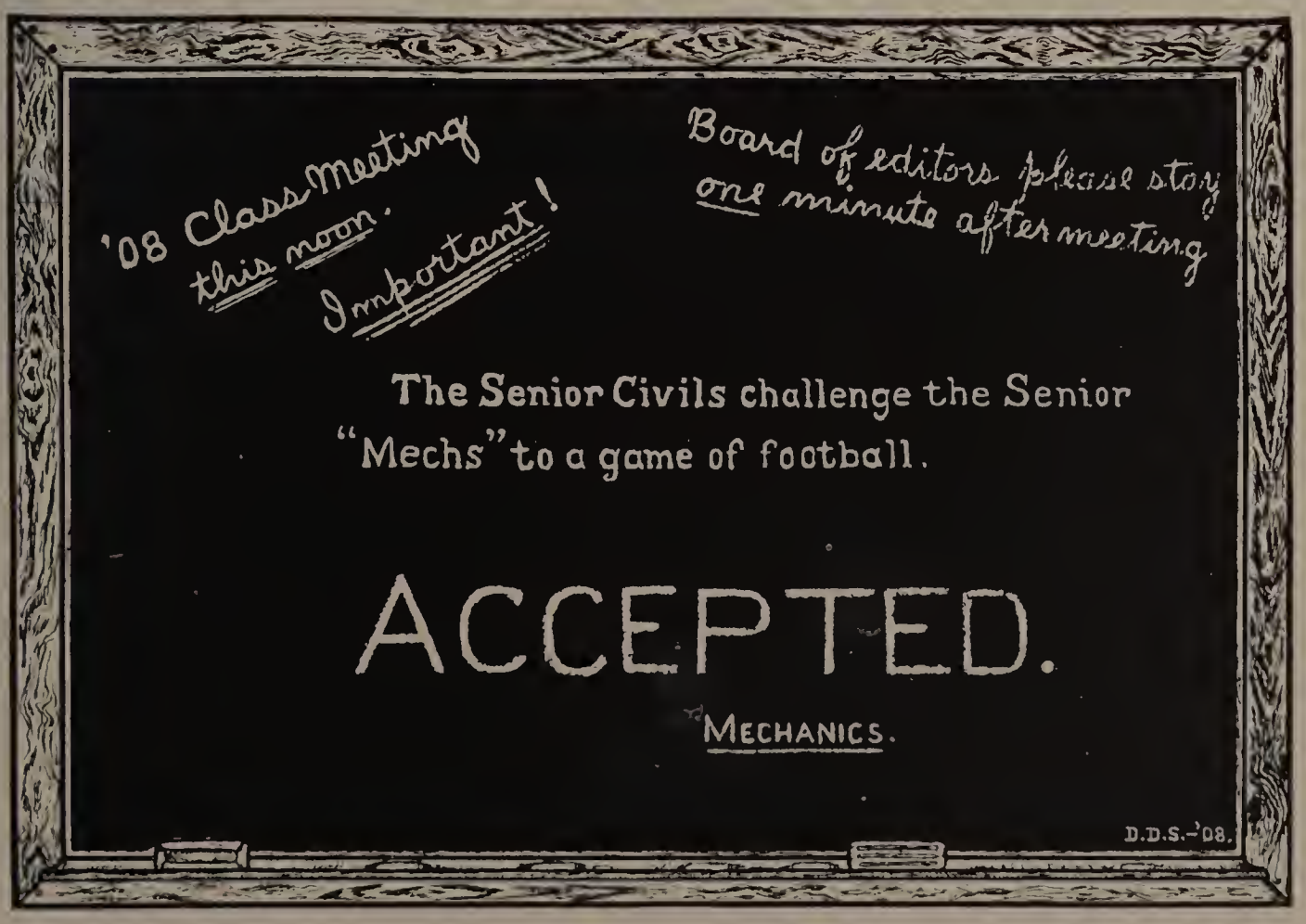
J. Eddy surprised everybody and showed that good end material has been going to waste the last few years.

Of course everybody was covered with bruises that it took a few days to overcome, but with the exception of Moore, we were all ready to fight the game over again in hydraulics Monday.

Line-up at end:

Mechanics, 5.	Civils, 0.
Chace, l.e.	r.e., Ellsworth
R. Smith, l.t.	r.t., Davenport
Andrews, l.g.	r.g., Stockbridge
Harvey, c.	c., Rogers
Simonds, r.g.	l.g., Moore
Baldwin, r.t.	l.t., Carleton
Chesley, r.e.	l.e., Aguirre
Cottrell (Capt.) q.b.	q.b., Boutelle
Sawtelle, l.h.b.	l.h.b., Sargent
Lewis, r.h.b.	r.h.b., Rowell
Lowe, f.b.	f.b., Lamb

Touchdown: Lewis. Goal missed: Lewis. Referee: Crowther '09. Umpire, Lawley '08. Linesmen: Fitzpatrick '10; Pease '10. Timers: Ronian '08; Callahan '09. Time, 15-minute halves. Attendance 20,000.



Commencement Week

Through the earnest endeavors of the Class of 1907, Commencement Week was last year given a new significance. Formerly, the final exercises have been very meager and confined almost exclusively to the class and a very few friends; but last year a Commencement Week programme was prepared and admirably executed on a much more liberal plan.

Besides the baccalaureate sermon and the graduation exercises, the whole week was made one of festivities. Monday and Tuesday were spent in a series of baseball games between the different Senior divisions, and the Alumni began to gather and renew old acquaintances on the Hill. On Tuesday evening came the first official event of the programme, the annual Commencement lecture by Professor Richey. The lecture was held in the new Electrical Laboratory, which was thrown open for inspection at that time. The auditorium was filled to its utmost capacity and the enthusiasm manifested so early in the week seemed to foretell a successful Commencement Week.

Wednesday was set apart as a field day for the whole school, and besides the sports of the day, the Hydraulic Testing Plant was also in operation during the afternoon and open for public inspection. In the evening the President tendered a reception to the Seniors and Alumni.

The graduation exercises were held on Thursday morning in the large general laboratory of the Electrical Department, and owing to the available room the exercises were much more largely attended by the public than heretofore. During the forenoon all the buildings were open to visitors, and the shops and laboratories, which were in full operation, were thronged with visitors before and after the exercises of the day.

The afternoon of Graduation Day was devoted to the Alumni, and their annual dinner, followed by a business meeting, was held in the Electrical Laboratory.

By far the most elaborate part of the programme was the concert and dance on Thursday evening. The concert was held in the large lecture room of the Electrical Laboratory and was attended by a throng of Tech men and their friends. The remarkable excellence of the programme was greatly enhanced by the fact that the artists were all Tech men and the appreciation of the audience was manifest by the hearty rounds of applause which greeted each number as it was rendered.

At the conclusion of the concert there was dancing, and for that evening the laboratory was transformed into a veritable ball-room; and more than one staid Tech man stopped in amazement at the sight of the "car barn," which had been filled with workmen and the hum of electrical machinery, thronged with dancers and filled with the strains of sweet music.

Altogether too soon the last waltz was over, and Commencement Week was at an end; a Commencement Week, successful beyond expectation, and which showed the possibilities which are opened to every graduating class of making more of it than a mere perfunctory ending of the course.

"None but herself can be her parallel."—*J. K.'s stenographer.*

"They also serve who stand and wait."—*Harrington.*

"Necessity is the mother of invention."—*Who can't make a crib?*

"Fools rush in where angels fear to tread."—*Prospective students of W. P. I.*

"This is the true beginning of our end."—*Entrance exams.*

"It is better to be little than not at all."—*Dick Newman.*

"A very ancient and fish-like smell."—*Chem. Lab.*

"Both were young and one was beautiful."—*The western pioneers.*

"His modesty was a candle to his merits."—*Copeland.*

"Too fair to worship; too divine to love."—*Nourse.*

"Something between a hindrance and a help."—*Baker.*

"A mechanical couple."—*"Pa" Fairfield and "Ma" Buzzell.*

"Devout and pure, sober, steadfast and demure."—*Bill Sellars.*

Field Day

At Commencement time, the Class of 1907 introduced a new feature by setting aside one day of Commencement Week as a school field-day. All work on the Hill was suspended for the entire day and the whole student body was left free to enjoy a holiday. The programme of events was chosen with the idea of offering to every student an opportunity not only to witness good sport, but to become an active participant.

The good judgment of the committee in charge was manifested at the start, for a finer June day could scarcely be imagined, and by nine o'clock Alumni Field was covered with a crowd of Tech men, Faculty and Alumni prepared to enjoy a day together. The first events were freak races of various kinds and an exciting series of tugs-of-war between divisions of the various classes, and the enthusiasm with which these were received, showed very plainly that they had served their purpose.

The event of the day, however, was the baseball game between the Faculty and Seniors. Both teams appeared upon the field at about ten and started in on a period of practice which threatened to annihilate several of the artists; but fate intervened in the shape of Dr. Conant, the umpire of the day. With dignity befitting his exalted position, he stepped to the middle of the field and announced the batteries for the game, with a flourish that would have turned Christy Hassett green with envy.

After the burst of applause, the teams took their positions and Dr. Engler stepped to the box to pitch the first ball. Conie produced the box and with calm deliberation the seal was broken, the tinfoil removed, and behold—a fine, yellow lemon. When this terrible blunder had been righted, Prexy grasped the ball with determination written on every feature and delivered it with a snap which had been computed to produce a combination of twists and bends like a Freshman's first drawing sheet; but, alas, he had chosen his axes wrong. The ball struck the ground about ten feet in front of the plate. Jenks made a futile attempt to swipe it on the second bound, and the game was on.

What revelation of wasted possibilities that game was when we stop to consider what might have been the history of baseball if Prof. Bird had devoted his time to acceleration, positive and negative, of the baseball instead of to a mere theoretical study of the subject at large; or if Prof. Coombs had dedicated his hot-air apparatus to rattling some opponent from the coaching lines, rather than to a series of lectures on

"American Slang, its Origin and Growth;" or, if you please, if Dr. Ewell had spent the last few years in pursuit of the sphere in the inner garden instead of his search for that equally elusive but less material object, the third atom of O_3.

All too soon the game was over; and, with parting cheers to each other, the teams disbanded, little caring who had won or what was the score.

In the afternoon came the game between the Varsity and Boston College, which resulted in a decisive victory for the Grey and Crimson, a fitting climax for a day which will long be remembered by all Tech men who participated as one of the few strictly Tech holidays.

May the coming classes follow in the footsteps of the illustrious Class of 1907 in establishing this day as a permanent holiday of Commencement Week!

That "still, small voice."—*Dr. Conant.*

"Blessed are the meek, for they shall inherit the earth."—*Levi Sawin.*

"He is as fresh as the month of May."—*Davy Gallup.*

"Lord, what fools these mortals be."—*The complaint of the Faculty.*

"Love me, love my dog."—*Kinny.*

"The world is mine."—*J. K.*

"A horse, a horse; my kingdom for a horse."—*"Davy's" voice from under an auto.*

"Better late than never."—*Lowe.*

Goddard, returning from the hunt carrying a hare, meets a friend who accosts him thus: "Hello, Bill. Is that your hair or a wig?"

(Ad.) Wanted: An Electrochemist. No Ph.D.'s need apply.



FOOTBALL.

Athletics in General

Among the various exercises at Tech there is one which should under no condition be overlooked. This is the exercise of the body, and to every fellow should mean a great deal, for it depends upon himself whether he shall feel strong and healthy or weak and unhealthy.

There are many lines which are open for participation, and it seems that any one ought to be able to find at least one which he could come out and try for. For instance, there are football, basketball, track, and baseball. This is a good variety, as much as some large colleges carry, and which, we think, should draw out more fellows than it does.

Athletics at Tech are met with a great many disapprovals, and this in itself is a great drawback. It is something to be avoided and the sooner there is harmony on this point, the better it will be for the school and for athletics. It has been reported that many parents refuse to let their sons come to Tech for the very reason that there is no gymnasium or athletic field. The alumni have recognized this and a movement is on foot to have the school provided with both of these features. They will fill a long-felt want, for then every one will be able to take exercise of some kind.

In taking up the different lines of athletics it seems best that they should be taken up in the order which they are participated in:

Football

The season this year opened with a fairly good number of the old men back, and the prospects for a good team looked somewhat bright. The men were called out as soon as school opened, and practice started off with a vim. The season soon started, and our schedule was on in earnest, but alas for Tech! Our hoodoo followed us through the whole season, and we ended up without a victory to our credit. The redeeming feature of the season, however, was the way the student body stood behind the team in the Holy Cross game. In this game the spirit shown by the students is unparalleled in the history of the Institute. From the time of the first kick-off to the end of the game the team received cheer after cheer, and song after song encouraged it on. But fate was against them, and although every man on the team played his hardest, Tech was unable to score.



1907 FOOTBALL TEAM.



BASEBALL.

During the Freshman year of the 1908 class, baseball, which for many years had been abandoned, was renewed at the Institute. A strong team has represented Tech in this department of athletics ever since, and its success is shown by the following scores:

1905

Boston University	7	Tech	3
Springfield Training School	4		7
Springfield Training School	6		7
Cushing Academy	7		16
Trinity College	10		1
Worcester Academy	6		9

1906

Worcester Academy	2	Tech	3
Trinity College	1		6
Springfield Training School	8		13
New Hampshire State College	9		15
Boston College	5		10
Mass. Agricultural College	17		11
Springfield Training School	6		7

1907

Springfield Training School	4	Tech	2
Worcester Academy	5		4
Trinity College	1		11
Connecticut State College	1		6
Tufts College	9		1
Rhode Island State College	2		15
Boston College	4		6

1908

Springfield Training School	9	Tech	8
Worcester Academy	4		3
Rensselaer Polytech	5		8
Rhode Island State College	8		8
Mass. Agricultural College	7		4
Brooklyn Polytech	8		0
Pratt Institute			
Tufts College			



1907 BASEBALL TEAM.



TRACK TEAM.

Track Team

Since the advent of the Class of 1908, track athletics have become more firmly established than they have been for several years and, without boasting, it may be said that 1908 has been, in a great degree, responsible for this success. While we have none among us destined to be recorded in the immortal pages of Prof. Coombs' scrap-book as world beaters, there are many of considerable ability who have always responded to the call for men, when the snow has left the "clinker" track, and who have worked hard to make track athletics at the Institute what they should be.

In our Freshman year there were two meets—one, a closely contested and very interesting class meet in which 1908 won from 1906 by a narrow margin; the other, a dual meet with Tufts, resulting in a score of 87 1-3 to 38 2-3, 1908 winning 17 of the Tech points. This meet, while one-sided, especially in the field events, showed some very good material and gave promise of better things to come.

The next year we were unfortunate in not having a contest with some other college, but a class meet was held which, in spite of the easy supremacy of 1908, was not lacking in excitement. In this meet, two Tech records were broken—the discus record by P. M. Hall, '06, and the hammer record by D. D. Simonds, '08. The score was: '08—60, '07—23, '09—20, '06—14.

Our third year was the opening of what appeared to be a new era in Tech track athletics. More men came out than in former years, and two meets were held with Trinity and Rensselaer Polytechnic Institute. The annual class meet was omitted owing to the weather.

In the Trinity meet, although beaten by a score of 78 to 48, the members of the team made a very creditable showing, when the disadvantages under which it is necessary to train at the Institute are considered. The following week, the team went to Troy, and in the meet with Rensselaer an opportunity was given to show what Tech could do in competition with an institution of its own standing. Tech won by a score of 78 to 48, although it was closely contested till the very last. This year 1908 was especially prominent, having manager, assistant manager and captain, and winning 25 and 44 points in the Trinity and Rensselaer meets respectively.

In 1908 the track team bids fair to be the best during our course. With a large number of able candidates and meets arranged with Rensselaer and Union College, a successful season seems assured, and 1908 may be relied upon to sustain its present enviable reputation.



1907 TRACK TEAM.

Tech Track Records

EVENT	RECORD	RECORD HOLDER
100-yard dash,	$10\frac{1}{5}$ seconds.	H. L. Dadmun, '91.
220-yard dash,	$23\frac{1}{2}$ seconds,	H. L. Dadmun, '91.
440-yard dash,	51 seconds,	H. L. Dadmun, '91.
$\frac{1}{2}$-mile run,	1 min. $59\frac{1}{5}$ sec.,	H. L. Dadmun, '91.
1-mile run,	4 min. $45\frac{4}{5}$ sec.,	J. M. Gallagher, '94.
2-mile run,	10 min. 36 sec.,	H. L. Dadmun, '91.
120-yard hurdle,	$16\frac{4}{5}$ seconds,	O. W. Lundgren, '97.
220-yard hurdle,	28 seconds,	P. F. Ellsworth, '08.
Running high jump,	5 ft. $7\frac{1}{2}$ in.,	L. W. Stanton, '03.
Running broad jump.	21 ft. 2 in.,	W. B. Jewett, '88.
Pole vault,	10 ft. 6 in.,	H. E. Scott, '99.
16-lb. shot put,	36 ft. 5 in.,	Brigham, '95.
16-lb. hammer throw,	92 ft. 6 in.,	D. D. Simonds, '08.
Discus throw,	96 feet,	P. M. Hall, '07.

O wa ta na Siam,
O wa ta na Siam,
O wa ta na.
O wa ta na Siam,
O wa ta na Siam,
O wa ta na Siam,
O wa ta nas.

For D. C. repeat.

(Sing to the tune of America.)

Basketball

The game of basketball being one of the branches of athletics that we take up at the Institute, the question of importance that comes to us is, "What has 1908 done for itself in this line?"

Four years ago when we entered the Tech, many of our class went into basketball, and one of our members, W. Fred Lawley, made center for the Varsity team. That same year we had a Freshman team that was a very good one, and it gave the Varsity team many a stiff practice.

At the end of our Sophomore year, Lawley was elected captain for the next year, and Denny was elected manager. Later in the season Champney was elected assistant manager of the team.

The team went along very well this year under the management of the '08 men, though with many green men on the team the number of victories was not large, yet their work was commendable, and the ability of Captain Lawley was noticed by all the teams that we played against.

At the close of the season, Champney stepped into Denny's place and Lawley was re-elected as head of the team for the next season.

This year, with the two '08 men handling the team, the improvement was very noticeable; yet there were many difficulties to work against. The team made a good showing against the college teams that they played.

The line-up for the team for the 1907-08 season was as follows:

W. T. Fitzpatrick, '10, lf.
C. A. G. Pease, '10, rf.
W. F. Lawley, '08 (Capt.) c.
H. W. Smith, lb.
A. L. Wholean, '10, rb.
R. F. Hall, '11, sub.
C. A. Atherton, '10, sub.
Manager, R. P. Champney, '08.
Assistant Manager, C. W. Wheelock, '09.

Fish—"Hopkins, you are about like the man's clock that was always stopped, so that it would be right at least twice a day."

Prof. Haynes—"Speaking of the arguments against woman suffrage, it is often claimed that women cannot shoulder a gun, but we all know that there is one woman who can swing a hatchet."



1907-08 BASKETBALL TEAM.

Tennis

Tennis at Tech has not been a great favorite except with a few who played the game before the fall of 1904. Perhaps the greatest reason why more men have not come out, has been the poor condition of the courts and the absence of backstops, due to the lack of available funds.

Yet some of us have enjoyed many hours out there in the run and, like the other sports, it has helped us to take our minds from the continuous routine of school work, and we think that the love games we lost were as enjoyable and as exciting as those we won.

1908 has always held the majority of the members listed in the tournaments, although we have never won in a final event.

Admission fees to the tournaments have been used to procure a loving cup, upon which the names of winners are engraved each year. The following men have won in the last three tournaments:

1904 Leroy P. Clapp, '07.
1905 Charles H. Gilbert, '05.
1907 Fred W. Kennedy, '11.

The following men have been in charge of the tournaments during our course:

1904 and 1905 J. Eddy Chace, '08.
1907 M. K. Sweet, '09.

Who handed Hap Hay a lemon on his début in the debating line?

Coolidge—"How much does a pound of brass weigh?"
Foster—"I don't know; about 16 oz. more than an equal amount of hot air, I think."

Ives—"I'll have to modify that statement slightly."

Ives—"Down at the university."

Wood—"Prof. Bird, does it make any difference in the voids whether you have a box filled with square or round shot?"

Bird—"A heavy man sitting down in a chair is a man of great force."



A. R. Powers, *Manager.*
Dana J. Pratt, *Leader.*

Quartet: W. S. Sellars, first tenor; W. H. Cooper, second tenor; A. B. Holcomb, baritone; W. D. Smith, bass.

Soloists: W. S. Sellars, tenor; A. B. Holcomb, baritone; G. H. Anderson, clarinet.

First Tenors: Sellars, Anderson, Childs, Starbird.

Second Tenors: Cooper, Ferguson, Smith, Kendall.

Baritones: Holcomb, Bigelow, Poore, Goodell, Roys, Spaulding.

Bass: Smith, Powers, Rogers, Schofield, Belden, Hayes.

Pianists: Graham, Normand, Denny.

Mandolin Club

F. A. Dorman, *Manager.*
M. H. Neal, *Leader.*

Mandolins: Neal, Hall, Hawley, Toucey, Locke, Anson, Wheelock, Howe, Putnam, Lund, Belden.

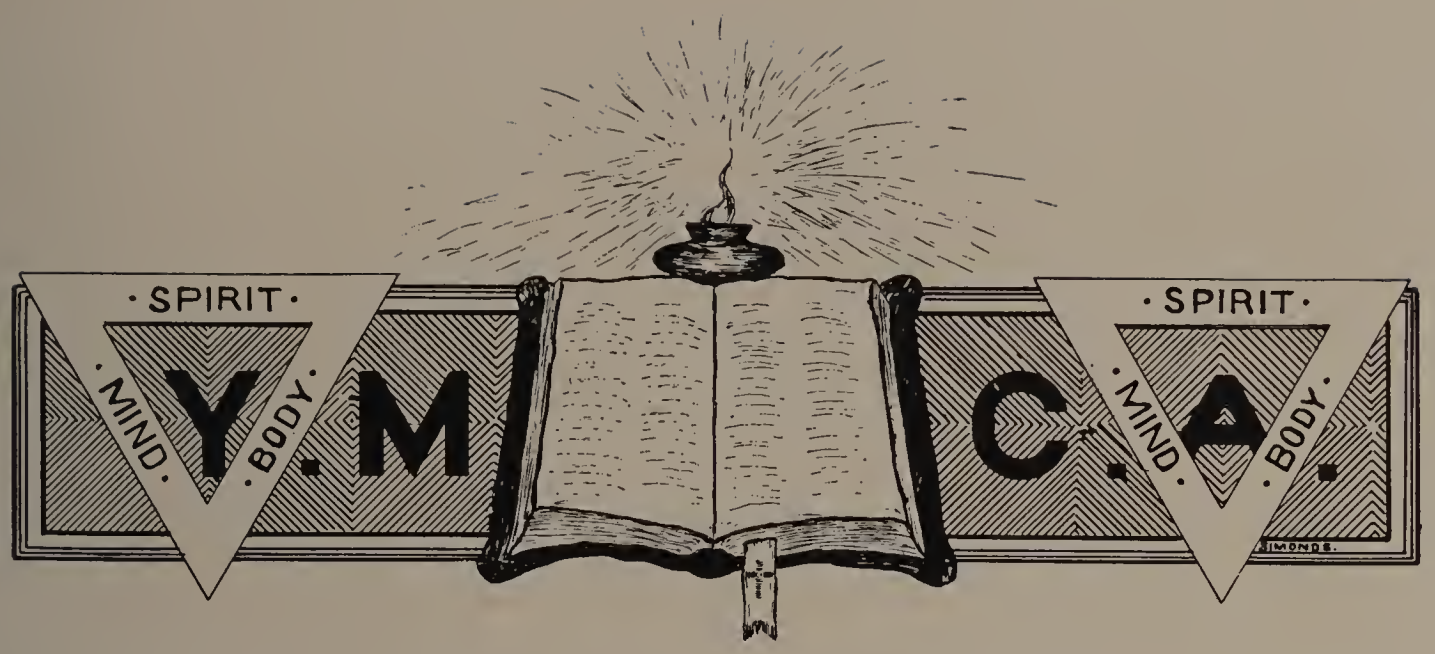
Banjos: Irving Olsen. *Pianist:* Ross.

Trio: Neal, Toucey, Irving.

The Association was organized in the fall of 1904 and concerts were given at Charlton, Hudson, Warren and other towns; in Worcester concerts were given at Association Hall in the Y. M. C. A. building, Continental Hall, Salisbury Hall, Thule Hall, and others.



1907 GLEE AND MANDOLIN CLUB.



The Young Men's Christian Association, the oldest student organization at the Institute, originated in the student prayer meetings which were held in 1868. In 1891 the students were organized into the present Association, which is united with the other college associations in the United States and Canada, in the student department of the International Association, and with the student organizations of the world in the World's Student Christian Federation.

In comparison with other colleges, where there are dormitories and a centralized college life, the Association at Tech is somewhat handicapped by the facts that its members live so far away and that their time for outside work is limited. Under these conditions, its membership is small, numbering at present less than fifty men. But the long life and present interest indicate that, even with these disadvantages, the Association is an active and prosperous society. While many students are prevented by their work from taking an active part in the work of the Association, it has the hearty support of the student body. The Association, as the only form of religious activity on the "Hill," works for a manly Christian life among the students. Its work is carried out by weekly religious meetings, Bible study classes, and occasional receptions or social evenings. The average attendance at the weekly meetings for the past year has been more than twenty and the total weekly attendance of the Bible study classes has been even more. The meetings are held in the Association rooms in the Engineering Laboratories on Wednesday evenings. Sometimes they are led by students and often special speakers from outside are secured. The Bible study classes are held weekly between five and six on afternoons convenient for the members. There are four of these classes, three of which, two for Freshmen and one for Sophomores, are led by students, and the fourth, for Juniors and Seniors, is led by an instructor. These gatherings are well attended and are

pronounced interesting and helpful by all. Another feature of the Association work is the annual reception given to the Freshmen in the fall for the purpose of introducing them to the upper classmen and professors, and interesting them in the activities of the Association.

While the Institute Association has no official connection with the city Association, through the courtesy of the latter, limited membership privileges are granted to student members and a student membership ticket is accepted for its face value towards a full membership in the city Association.



FOUNDRY.

The Journal of the Worcester Polytechnic Institute

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Jerome W. Howe, '09, *Assistant Editor.*
Carlyle A. Atherton, '10, *Assistant Editor.*

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W. Hadwen Mitchell, '05, Washington, D. C.
Ernest L. Thrower, '01, Cleveland, O.
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Robert H. Taylor, '95, San Francisco, Cal.
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Clifton G. Spaulding, '09, *Business Manager.*
Ralph E. Toucey, '09, *Assistant Business Manager.*
Clarence A. G. Pease, *Assistant Business Manager.*

The Journal is published on the first day of November, January, March, May and July.

Kinnie—"The rod form of bacteria are narrower than they are long."

Freshman—"Who is doing the shooting in there?"

Junior—"Oh, that is Prof. Haynes in there knocking the Worcester Telegram."

Astronomy logic—When days grow longer, the nights grow shorter.


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A Skunk Hunt

As related by Nimrod, 1908

During the early fall of my Freshman year, it was my fortune—or misfortune—to be with a hunting party which ran across a skunk. The outcome of this was,—well, to make a long story short,—I received it on my hunting boots.

One December morning, when the snow was deep, I took the boots out of the dog-house, where they had been for a month or more, and they seemed all right. They continued to seem all right until I sat in "Dutchy" Chase's room with my feet on the steam pipes. By 10 o'clock there was a faint smell.

During the next hour, in Professor Coombs' French class, the professor opened the windows. I knew I was in a mess, but I was coaxed so strongly to stay to English lecture that I remained. Our division was early, so we sat down in the chapel; but when the rest of the class came, they stood in the back of the hall yelling "skunk!" etc., until I had to "climb out."

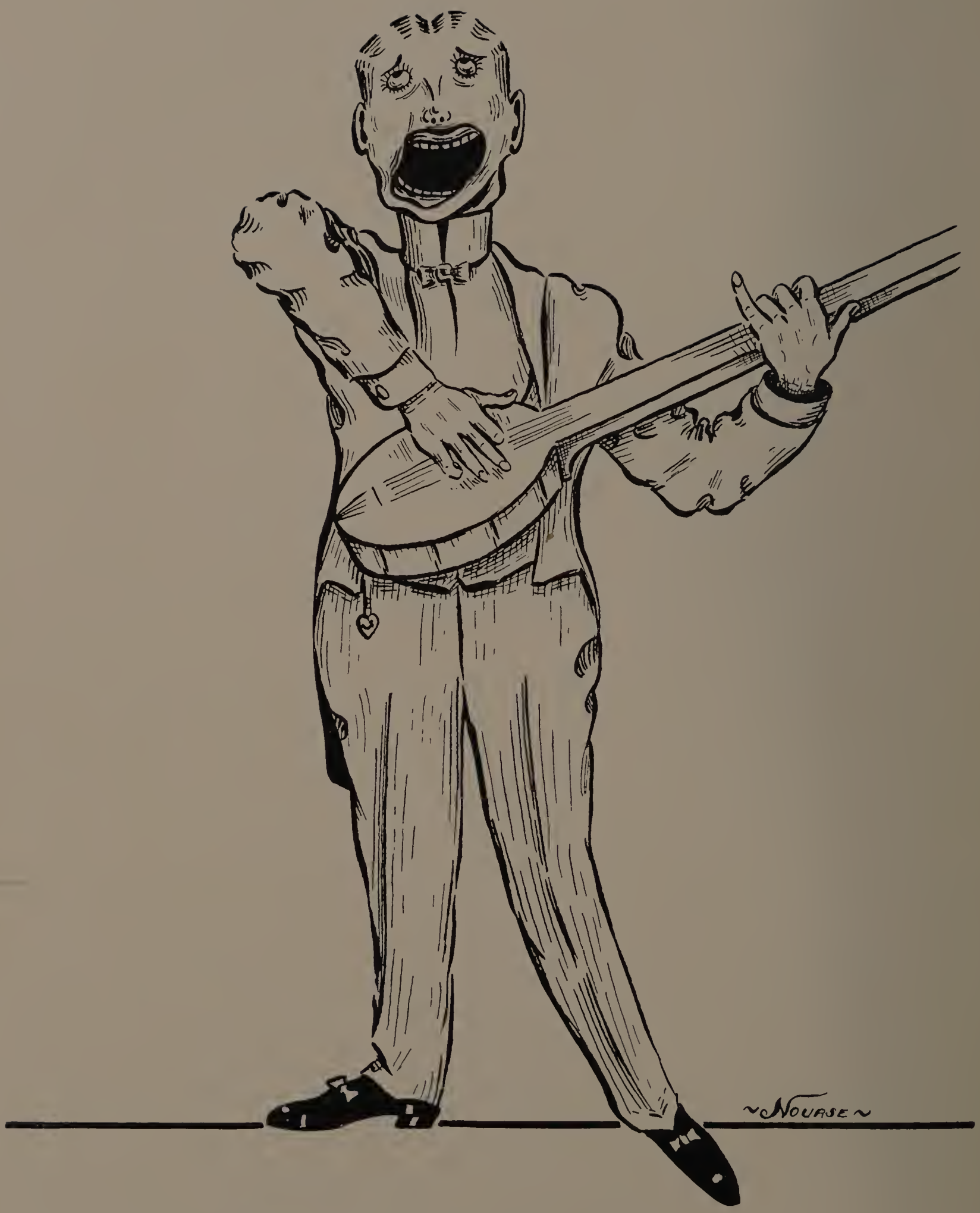
In the basement I witnessed some Freshmen, assisted by several Seniors, hunting in the lockers and back of them for "that skunk." I hurried out as quickly as I could and was on my way down the Hill when I heard the class clapping. I afterwards learned that Professor Coombs had called the roll and had then dismissed the class. It was too much for him.

The tragedy of the Chem. Lab., or, Who threw the sponge at Dr. Bonnet?

What is Danny doing? Oh, he is nursing his fingers. Frank Lowe handed him a piece of hot glass

The laugh was on Frank Lowe when Prof. Smith gave him a jaw clutch to design.

Ronian, after Mountain Day—"How do you like Purgatory?"
Rogers—"It's Hell."



THAT GLEE CLUB "STRAIN" AGAIN.

Personal Sketches







H. Clayton Kendall

CLASS PRESIDENT.

HORACE CLAYTON KENDALL, $\pi\ \omega\ \pi$, *Mechanic*

Doc Kendall, general overseer of schedules for mechanics, was born and grew to years of understanding in Worcester, where he has been a leader of things great and small since Sept. 26, 1885. Though many are the girls who would like to be, Doc says there is just one for him, and perhaps this accounts in part for the way in which he adheres to his resolution: never to allow his studies to interfere with outside duties. Kendall was President of the class the second half of the Freshman year, Secretary second half the Sophomore, Treasurer the second half the Junior and the Senior, President the second half the Senior year, also being President of his division throughout the course. He was a member of the committee which was responsible for the success of our Junior banquet and has been associated with the work on the Aftermath from the start, finally becoming the business manager. It is with the deepest regret that we shall say good-bye to Kendall.



Harry F. Ammerman



George H Anderson.



B. R. Andrews



Wm. H. Baker.

HARRY F. AMMIDOWN, *Electric*

A long, long time ago, almost when Tech was known as the Worcester Free Institute of Industrial Science, a take-it-easy, not-too-fast, rather drowsy sort of a fellow applied for admission. At present we have among us the self-same sort of a mortal; but this fellow we call "Ammy" for short. "Ammy" is noted for his theory of ventilating recitation rooms, claiming that double windows, causing too much warmth for comfort, tend to produce sleep. As a member of the track team, he was speedy in the short distance events when he got started, but it is doubtful if he ever got a start. "Ammy" and Darrah revolutionized electrical design in the first half of our Senior year. We all wish "Ammy" success.

GEORGE HERBERT ANDERSON, *Electric*

"Andy" left Sweden for Tech in March, 1884. He prepared at Worcester High and entered Tech with the class of 1907, but along in the latter part of his Senior year he thought of the greater honor it would be to graduate with the class of 1908, so he waited a year for us. "Andy" exhibited his chest expansion in the Glee Club. He was also a prominent member of the W. P. I. Musical Association.

BERNARD RUSSELL ANDREWS, *Δ Τ Ω, Mechanic*

"Andy" claims Plymouth as his home, but in some mysterious way all his frequent journeys in that direction seem to terminate in Sterling. He used to be the first man in the class, but has lost that exalted position since the advent of Ammidown and Anderson. Owing to frequent calls "home," he is almost an entire stranger to the most of the class, although he generally manages to get around to recitations for a few days in the middle of the week. His marked ability on the Hill, however, amply makes up for his spasmodic attendance, and he attained a very high standing in hydraulics, based mainly on his skill in sorting catalogues. "Andy" has served the class on various committees, and, as he is one of the board of editors, is exempt from any roasts.

WILLIAM HOWARD BAKER, *Δ Τ Ω, Civil*

Baker, a shining example for the Senior civils, was born in Shrewsbury twenty-eight long years ago. Of his early days we have heard but little, except that he was a pretty boy, as all the Bakers have been since. He prepped at the Worcester Academy and took exams for Tech in 1900. We don't know just what crime he was trying to escape from that year, but, nevertheless, he joined the army and they took him out West, where he drilled and sweated and grunted and learned to wash dishes. He did all this so well that he was made Corporal; this sounded pretty fair, but Sergeant Baker soon sounded better. They say "Bill" taught school out there too, and explained—well, we don't know what, but he explained anyhow. Four years after taking those exams for Tech, Bill jacked up his Sergeant job, came back and entered on those self-same exams. That is "going some," but it's even said that Baker, Jr., expects to enter on "Pa's" exams, too. Then as our first Vice-President, afterwards Treasurer, President, again Treasurer, and then our first married man, we think that Bill has served us well. During his Soph. vacation he could not resist the blue and brass buttons, but swelled around as special cop at the White City. Next summer Bill laid carpets while Mrs. Bill bossed the job. (She could do it, too.) And now Bill spends his nights beating it up and down the room doing a sort of double shuffle while Baker, Jr., does a series of war-whoops.



Alden W. Baldwin.



H. E. Ballard



Arthur F Barnes.



B B Bugham

ALDEN WELLING BALDWIN, *Mechanic*

Hello, Baldwin? How did I know? Just guessed. "Baldy" first used the telephone in Allentown, Pa., back in '87; since then he has graduated (with honors) from the high school of that town and also the Bordentown Military Academy, and is now ringing himself through Tech (with similar credits). Football is his long suit, and "Baldy" played on both our Freshman and Sophomore teams, besides representing old 1908 on the varsity team all four years. Though his tendency has been toward civil engineering he took the "greasy" course. At the time of going to press his first summer away from home was spent as a strike-breaking machinist, but owing to certain developments which occurred in our Freshman shop practice, he says he does not intend to make shop work his life vocation. We expect of him nothing short of a social lion and a matinee idol, for Tech has taught "Baldy" many things—at least it has tried.

HARRY EARL BALLARD, *Electric*

Harry first saw daylight in Holyoke, Mass., on March 16, 1885. He prepped for Tech at the Holyoke High School. Commonly known in some parts as "The King" and in other parts as "Ānanias." Harry's long suit was always along the automobile line. He can tell any car by the smell or the sound. Does not agree with "Auto Jim's" principles and classes him as a poor specimen. He was always a hard worker (before he came to the Institute) and since his arrival he has always stood near the head of the class (alphabetically). A winner with ladies, as any one who knows him will tell you. Harry left us in the middle of the Senior year on account of sickness.

ARTHUR FRANKLIN BARNES, *Mechanic*

Born, reared, educated and married in Worcester, Arthur has set the social pace in his native town ever since the 28th day of May, 1886. Ah, but that makes him only twenty-two years old and—yes, but it is all true. He came to us from the South High School young, bright, care-free and happy; he leaves us old, bent and care-worn but still happy. The thing that has helped not only Barnes but the Faculty (and instructors) most is his way of never agreeing with them, and they owe him many thanks for suggestions offered for the improvement of the mechanical department and things in general on the Hill.

B. B. BINGHAM, *Electric*

Bing was known as "Triple B," "Double B. Bingham," "B^3," and "Bing." Who he is no one knows, but we all know that he hailed from Schenectady, having tired of the work at Union College. We also know that he brought a plentiful supply of his nerve with him. "Bing" was an adept at tracing boiler piping isometric drawings by holding them up to a window pane. In the electrical laboratory he made special research on work with certain precision instruments. His specialties were the uniscope, the infrometer, and the phaseometer. He strongly advocates the use of Greene's Nervine.



Geo J Bouteller.



J. L. A. Brown



Herbert M Carleton.



J. Eddy Chace.

GEORGE JENKS BOUTELLE, *Σ A E, Civil*

No one had to announce to Worcester that Jenks came to grace this our mother earth. He did all the announcing that there was to be done, and made everybody well aware of his presence. He spent his early life partly in school, but mostly swiping rides on freights and switch-engines. As he grew older he came to like his lessons better, and before he left the high school he made a decided hit in declamations and in class plays. Besides being one of the most popular men in Tech and in his class, he was probably the most popular man in Tech with the women until he got mixed up in a "hack episode" at a wedding. She just couldn't make those eyes behave, and they captured "Jenks"; and it has been a settled thing ever since, on the quiet. He still is quite a society leader, although the girls know that it is of no use. He played on the class foot-ball team as quarter-back. He was also one of the perpetrators of this Aftermath. He has been confiding in Bill Baker a good deal lately—getting points. George has always been a hard worker, and a pusher, and anything that he takes a hold of usually goes through.

JOHN LeROY BROWN, *Φ Γ Δ, Civil*

"Buster" thought he had better "smoke just once more" about twenty-three years ago, but he didn't have the words to express it as he has to-day. "Buster" looked down upon us for three years and a half; then he looked at us for six months, and finally looked up to us in our Senior year. He used to star at the theater as well as manage the "Tech Box." In his classes he always had some answer, which, when abstracted, was fairly correct. He was interested in sanitation, as it backed up his statements as to the danger of drinking too much water. Upon graduating he expects to go home and show the family the PAPERS—then he will call himself an engineer. He always had a good word for everybody and everybody had a good word for him.

HERBERT McM. CARLETON, *Δ T, Civil*

Herbert McM. Carleton hails from Plymouth, Mass. The civils class him among their "married men." Of course they may be a little ahead of the game, but the class found out three years ago that they had to start a bit ahead of Carleton in order to beat him out "in the long run." In the Sophomore year he added fifty-seven points to our cross-country score, and the next year he again made good. Captain of our Sophomore track team and next year captain of the Varsity is certainly a good record.

We have heard that his landlady makes him pay for the telephone, while at Central they keep one girl calling 761-1 steady. At Chaffin's it was sometimes the last car at night, but more often the first in the morning, and happy—well. his girl must have told him lots of nice things. We had to listen while he practiced love songs on us, too.

He is an authority on concrete, having been "inspector" nearly all of one summer. His most promising line of study is abstracts. Even Professor French had to admit that his French abstracts were truly wonderful.

JOHN EDDY CHACE, *Mechanic*

Eddy hails from South Attleboro. As a Freshman he became interested in the Y. M. C. A. work and learned to go without his dinner on Wednesdays with the rest of the bunch. Although a rather meek and retiring chap, it is rumored that he is a terrible fusser and more or less of a social lion, weddings being his specialy. Eddy is a star at football à la Jennings, and has been instrumental in bringing about several tournaments; but he has always had a desire for the real thing, and last fall he come out for the Varsity and was one of the surprises in that never-to-be-forgotten mechanic-civil game.



Ralph P Champney



Elford W Chesley



Ralph P. Clarkson



Robert T Cole

RALPH PRESTON CHAMPNEY, $\lrcorner T$, *Mechanic*

Fellows, this is ''Champ.'' ''Better get your Thermos to-day; we send the balance back to-morrow.'' He appeared at Ayer Junction, July 5, 1887, arr. Fitchburg six years late, left for Tech on time, where, as the book and supply department, he has been relieving us of father's hard-earned cash ever since. He always considered any instructor as a Freshman and any prof as a wise one; is a crank on cold water baths and basketball; loves the fair sex with all his heart, eats often and little, and shaves seldom and much. ''Champ'' was captain of our Freshman basketball team and manager of the Varsity for '07-'08. As a result of three summers spent computing actuaries' data he was able to tell not only the duration of his N. Y. honeymoon, but also the exact year of his graduation. May his success be as large as his waist!

ERFORD WHITCOMB CHESLEY, $\phi \Gamma \lrcorner$, *Mechanic*

Chesley is a native of the city of North Brookfield, recently immortalized by George Cohan in one of his tragedies; and bears the reputation of being the worst rough-house artist on the Hill, in spite of his quiet air and the kindergarten questions which he persists in springing on the profs from time to time. His chief occupation before classes is a commendable endeavor to come to some understanding with Dick Newman as to which has the redder hair, but as Dick is color blind, the problem is pronounced unsolvable except by Calc. For a while he and ''Dutch'' lived together, but he bullied ''Dutch'' to such an extent that the society with the long name finally caused a separation, and he was forced to go into athletics to get his accustomed exercise, where he distinguished himself both as a track man and football player.

RALPH PRESTON CLARKSON, $\pi \omega \pi$, *Electric*

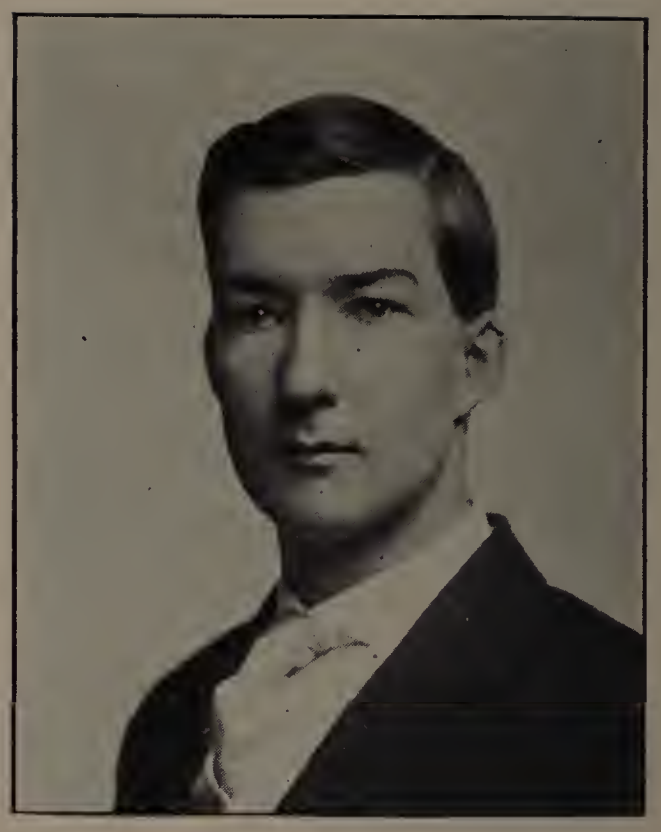
Sure we all remember that big hat and that winning smile. That was ''Clarky'' all right. He began life in Fall River in 1886. Ralph has been a very popular man in the class and has served on many committees. Even now as Secretary of the Commencement Committee he is racking his mighty brain in an effort to decide just how the invitations should be worded. He is a rival of the noted Ammidown for speed. In the Sophomore year he played on the class football team. It is said that he has never moved so fast since. During the football season of 1906-1907 he was assistant manager of the team, and the next year he steered the team himself. To use his own words, he ''used to be in Y. M. C. A., but liked dinner better.'' He still remembers some of the hymns and often renders them in duo with F. E. Wood. He is a jolly good chap, and a fellow worth knowing.

ROBERT TITCOMB COLE, $\lrcorner T$, *Mechanic*

''Bob'' was born in Kennebunk, Maine, July 22, 1885, and must have been reared in good old ''down East'' style, for those who know him say that he would soon put any boarding-house on a pay-as-you-share basis. Cole played on our class baseball teams, and the Varsity of '05 and '06; was our Junior class President and a beacon on the Aftermath board. They say he is pretty good at juggling trunks, but his easiest pose would be with a suit of work-begrimed clothes, a maul or crowbar over his shoulder and a loaf of bread in his mouth. The hats of all the mechanics are off to ''Bob,'' for he certainly deserves his place as first among them, and their well-wishes can be no more than that he may be as good an engineer as he has been a Tech man.



Walter S. Cook



Roger E. Coolidge



William H. Cotter



Lyman F. Copeland

WALTER GORDON COOK, *Mechanic*

Cook very calmly and unobtrusively arrived on the scene of action from Cambridge on that memorable day in September, '04, when we were first introduced to that mystery of all mysteries, "The System." He is an exponent of the simple life and at the same time of the strenuous life, for he has always been a hard and conscientious worker; but in spite of this, he is an ardent supporter of everything which tends to promote the Tech spirit. In spite of his dignified and somewhat ministerial air, he was once discovered at the theater; and one Saturday morning he appeared in shop arrayed in overalls and jumper and a "biled" shirt and white collar and necktie without being able to give a very satisfactory explanation. The climax was reached, however, when he and Ammidown joined forces at the beginning of the Senior year—for a combination of sober, sedate Cook with such a sport as "Ammi" is beyond comprehension.

ROGER EARLE COOLIDGE, *Δ Τ Ω*, *Electric*

Though he was not extra large in stature, "Cooly" could throw out as much hot air and as big bluffs as any man in the electrical division. Before entering the Institute, during his course at Mount Hermon and afterwards, he spent most of his time, he says, working for his father for pin-money, hoeing potatoes, and ————————(ask him).

Roger was one of the class baseball team of 1906. Here he was right in his element, and so was appointed assistant manager of the 1906 Varsity, and later manager of the 1907 team.

"Cooly" never quite understood why he got an E in electric lab the first month.

WILLIAM HENRY COOPER, *π ω π*, *Electric*

"Bill" is one of our Worcester boys. He prepared for Tech at South High, and, judging from his work with us, he must have made good use of his time while there. No one on the Hill was better natured than he and few were as popular. As a ball player he certainly was a great help to the Varsity. Notwithstanding the fact that most of "Bill's" spare (?) time was spent in rehearsing quartette pieces, and smoking in the basement, he managed to stay with us as if he had really studied. "Bill" was a star in the Tech Quartette and in the Glee Club. He made a specialty of synchronizing motors in his Senior year, becoming so efficient in the act that, by sitting on the breaker, he could synchronize with the lamps bright or dark.

LYMAN FRANCIS COPELAND, *Δ Τ Ω*, *Civil*

"Lym" first heard the English language twenty-three years ago in the noted city of Brockton, Mass. It was in the high school of that town that he acquired a "prep" as well as a spirit that made him one of the first men of his division. He was as honest as he looked, and his square didn't need to have rounded corners. For the same old reason Terpsichorean Hall and the Public Library had many charms for "Lym." Machine shop and forge were his worries, so they gave him a plus or minus "D." It is said that he has to keep a date-book for men who want to study with him (for a few minutes) at "No. 210." He became violent once at Professor Ives and said, "D——— the Least Squares;" consequently he "pulled" an "A." On leaving school "Lym" says he is only going to tackle things theoretical,—let us hope this does not apply to everything.



A. Frank Cottrell Jr



William A. Darrah



Royal W. Davenport.



Sumner A. Davis.

ABRAHAM FRANKLIN COTTRELL, Jr., $\Sigma A E$, *Mechanic*

The owner of this patriotic name is a native of Tiverton, which, we learn, is a suburb of Portsmouth, R. I. The existence of such a person was first made known to us by a deep bass growl in answer to the first roll-call in chapel, and from that time to this, "Dutch" has always been conspicuous in affairs on the Hill. He is an all-round athlete and has not spared his time nor strength in upholding the grey and crimson on the athletic field. He has been a member of both football and base-ball teams since his Freshman year, and has been the captain of the one and the manager of the other, performing his duties with a spirit which has won the respect of all on the Hill who are interested in clean athletics. In class affairs he has been equally prominent. He was Sergeant-at-Arms until it was discovered how admirably "Yammie" was suited for the arduous duties of that office, and he was promoted to the office of President, which he held during the second half of the Junior year. He has been Division Treasurer for the past three years and has a way of separating a fellow from his money which cannot but excite the admiration of the victim himself. He is now one of the ink-slingers who have perpetrated this book.

WILLIAM AUSTIN DARRAH, *Electric*

"Doc" originally appeared in Providence, R. I., in the year 1886, but now hails from Washington, D. C., where all the other bright men of the United States "hang out." He first started to pollute his grey matter in the Technical High School in Washington, and arrived at Tech in our Sophomore year, causing him to hustle slightly in consequence—even though he is a regular walking encyclopedia—in order to graduate with us in June of 1908. He spent his summers drafting in a telephone office, and stringing wires; and he got stringing down so fine that he has been applying it to the profs ever since. He is a member of the W. P. I. branch of the A. I. E. E.

ROYAL W. DAVENPORT, *Civil*

Royal W. Davenport, or just "Davy" for short, is the shark of the Senior civils. Not a grind shark, but just an all-round good fellow, in line for a 75 too; and if he doesn't get it it won't be his fault. He is 22 years old and was born up in Griswoldville in the town of Colrain, Mass. He is right there with the goods, whether he is needed for football or a problem in stresses. His Newton Hall evening classes are quite popular with the civils, where he coaches the rest of the class along so that he won't be the only civil to graduate.

We used to think he was always a model chap till some one caught him going in the back door of the Worcester one night to see "Wine, Women and Song." Since then he has actually been seen with some of the fair sex, and it is reported that he came home mysteriously once along towards morning. It was the morning after the Tech banquet, and we only know that one of the waitresses seemed quite partial to yellow hair. But for all this we suppose from what we see, that to be a real shark, in mechanics anyhow, it is necessary to attend Poli's at least once a week. When asked if he were married or engaged, he replied, "No-o, not yet," so you see we " 'ave 'opes."

SUMNER AUGUSTUS DAVIS, $\pi\ \omega\ \pi$, *Electric*

Sometimes worth varies inversely as the size of the man. At any rate "Davie" began to show his worth in Jermyn, Pa., in 1885, and of course, coming from a small town, he naturally has an affinity for other small towns, and hence he bids Worcester au revoir every now and then, and sometimes oftener. In athletics "Sumny" was one of the big men on the track, going the 100's and 220's at a pretty fast clip. Besides being an athlete, "Davie" was an artist. After he had spent hours on sketches for the Aftermath and had handed them in, only to have them lost, he would sit right down again and "scratch out" more without a murmur. He spent his summers draughting at Carbondale, Pa., and at Bellows Falls, Vt.



Robert O. Dawson



Henry W. Lenny



F. A. Dorman



Philip F. Ellsworth

ROBERT OAKLEY DAWSON, *Φ Γ ⅃*, *Electric*

''Bob'' first enjoyed Mrs. Winslow's Soothing Syrup in that great metropolis, Gardner, Mass., in 1885, and still hangs his hat there whenever opportunity offers. After showing Gardner High School that it could not teach him anything further, he drifted about till he finally grounded on Tech Hill. ''Bob'' was a rather quiet and bashful boy—that is, when he was on the Hill; at other times and places it might be hard to say this. The old saying is, ''Still waters run deep,'' and we don't know that ''Bob'' was any exception to the rule. He was a member of the W. P. I. branch of the A. I. E. E., and spent the summer of '05—'06 ''grabbing nickels'' for the Gardner Street Railway.

HENRY WADHAMS DENNY, *Σ A E*, *Chemist*

Denny hails from Pittsfield, Mass. He was prepared for Tech. at the Pittsfield High School. ''Heinie'' is a gift to the class from '07. Fate and a misunderstanding with the mortising machine enabled him to complete his course with a really good class. He is a pianist for the Musical Club and was for one year manager of the Varsity Basketball Team. Denny has also considerable literary ability. He has been connected with the editorial staff of the Polytechnic Institute Journal for some time, and is at present its Editor-in-Chief. The hard work spent in making that magazine what it is makes ''Heinie'' sometimes look sleepy in the morning.

FRANK ALLYN DORMAN, *Φ Γ ⅃*, *Civil*

The whole town of Stratford, Conn., was delighted twenty-three years ago when it heard the voice of Mr. Frank Allyn Dorman. His future was marked ''success'' at that time, but to-day he is wearing a green tag with a slight mark-down. Frank came to our fold in 1907, after recovering from a serious illness of the year before. In stresses he was always able to say ''Yes'' or ''No'' and in the drafting-room he held small classes upon practical design of steel structures. Outside in the hustling world Frank was quite a confidence man, and was always ready to part with his gold bricks, especially to innocent Freshmen. He could express his opinion very clearly, even better than his ''pal,'' J. LeRoy. He never disagreed with anyone but his friends. He received more mail than ''J. K.,'' but as yet he doesn't have anyone to dictate his answer to. Frank had a fairly good leverage on the Faculty, which he never abused. In June he will probably not refuse a diploma, and of course not refuse to work, although his friends are a little worried.

PHILIP FOWLER ELLSWORTH, *Σ A E*, *Civil*

''Smile and the world smiles with you'' was the motto handed ''Phil'' about twenty years ago. The city of Windsor, Conn., deemed it advisable to be represented at Tech, so ''Phil'' was made their representative through the kindness of his father. In the social line, he is by far the foremost man in the class, as he keeps his numerous dates in a card catalogue. He used to board Sundays in New Worcester, but now it's the west side. He has been very prominent in athletics, representing the class in the cross countries and basket-ball as well as the school on the track teams of 1906 and 1907. He played a star game against the mechanics and didn't know when he was beaten. In his classes he always sits near the front so he will not miss a word. He enjoyed Geodesy, especially the star gazing part. He doesn't smoke, but knows the English language in all its forms. At Chaffin's he was the only man who could find a reason for going to Holden every night. He expects to go back to THE ACADEMY as Physical Director upon graduating. Altogether, he is a hale-fellow-well-met.



Horace H. Field.



Robert S. Fiske



Thome Foster



Victor E. Fuden.

HORACE HOPKINS FIELD, *Φ Γ Δ*, *Electric*

Horace was born in Fall River, Mass., in 1887, and now claims Monson, Mass., as his home, sweet home. Horace started cramming his cranium at the Fall River grammar schools, and then at the Warren High School; finally plucking up enough courage to "make a stab" at Tech. On first sight one would think Horace to be a very quiet lad, but, nevertheless, he took delight, for example, in spinning a few yarns now and then. He has spent some of his time hoeing "taters" and corn and all that sort of thing. He is a member of the W. P. I. branch of the A. I. E. E.

ROBERT S. FISKE, *Civil*

Robert S. Fiske from Philadelphia—" 'nough said." He was our first class President and has taken a special interest in the class ever since. From the first the profs seemed to "have it in for 'Bob.' " They got together and decided that "Bob" was an easy mark, but they made a big mistake; he could get up faster than they could get him down. Then that "I-told-you-so" smile of his at last convinced them that he was going to stay and be plumb "Bob" Fiske, consulting engineer,—and stay he did.

He is full of business (get on to the stride, too; just like J. K.'s, only shorter). Concrete is his specialty. Whenever the conversation lags, just ask "Bob" about concrete mixers and what they did last summer—it won't lag any more.

From hearsay we conclude that he, too, is a probationer of the "married men," and that when he goes "fussin' " he stays at home.

"Bob" shines in mechanics lab; the fact is, the civils don't shine in their own subjects, anyhow, but the others seem easy enough. When he gets on those overalls, sleeves rolled up, oil can in one hand and a piece of waste in the other, things in the mechanics department have to hump. If you want a hustler, get "Bob."

THORNE FOSTER, *Δ Τ Ω*, *Electric*

The first time "Thorne" took Castoria was in New York City in the cold month of December, 1884. But he preferred the other side of the river and now gives Brooklyn as his address. He has gathered up his preparatory store of knowledge in Brooklyn from the Erasmus Hall High School, Adelphi Academy, and Pratt Institute; evidently being one of those boys who think that "variety is the spice of life." "Fussy" is one of those frank and good-natured fellows, of the kind that are good natured because they can't be anything else. He made his name famous by playing on our Sophomore basketball team. His favorite position during the summer vacations was with "Dolittle and Seemore."

VICTOR ERICK FRIDEN, *Electric*

"Vic" first made his appearance at Worcester, Mass., in the windy month of March in 1887, and has remained faithful to Worcester ever since. He attended the Quinsigamond Grammar School, and then sailed through the Classical High School. Vic was the first man behind the bat on our Freshman and Sophomore class baseball teams, and was a great help toward our many victories. He was very patient, cool-headed, and good-natured, none of us ever having seen him angry. Vic spent most of his summers with the American Steel & Wire Works, repairing motors and generators, and things of that sort; that is why he was such a shark at design. But with all his good points he left us, much to our grief, at our last semi-finals.



Robert H. Goddard



Joseph Harris



John C. Harvey.



Luther W. Hawley.

ROBERT HUTCHINGS GODDARD, *Σ A E, General Science*

Bob (pronounced Borb, with the accent on the second syllable) came to us from the South High. The word "shark" fails to convey any idea of his appetite for knowledge, for he fairly revels in the weirdest of physics and kindred stumbling-blocks to the less fortunate of us. As a relaxation he has made a study of the theory and application of the gyroscope, and wrote a treatise on the subject which appeared in the Journal one month when there was a scarcity of good material. He also sang one evening with the Glee Club. On account, probably, of his extreme age and the venerable air which his bald pate has given him, Bob has been continually before the class in official capacities. He has been President, Vice-president, and Secretary of the class, and a member of committees galore, where his good judgment and untiring effort have been of the greatest value. Finally, as Editor-in-chief of these pages, he has again become the servant of the class, and devoted himself to the task in a manner which only those who have been associated with him in the work can fully appreciate.

JOSEPH HARRIS, *Δ T Ω, Electric*

"Joe" showed up first at Bristol, R. I., but later hied himself to the big shoe town of Brockton, Mass. He studied diligently in the Brockton High School, but did not join forces with us till our Sophomore year. Joe is another of the boys who are always happy. He never lost much weight on account of worrying. nor sleep on account of studying.

JOHN CHAPIN HARVEY, *┘ T, Mechanic*

"Born on the 4th of July," 1884, in Chesterfield, N. H., Jack attended the Brattleboro, Vt., High School, and before he could quite make up his mind as to just what he wanted to do, he found himself listening to the opening hymn at Tech. He says he's never been sorry that he came. Lecture courses were always to his liking, for they gave him ample time in which to make up sleep lost in perusing "Poly Sci." But do not be misled, for it was simply a case of "not dead, but sleeping." At the beginning of the Sophomore year he decided that chemistry was not just according to his liking, so he signed for the mechanical course. In shop he was so proficient that "Pa" assigned him the job of hanging pictures. Most all of us have at least one hobby, but Jack has two, viz.: gas engines and machine design. He and Cyrus can be found almost any time down in the mechanical laboratory, "watching 'em purr." Though not given to hot-airing, he can deliver the goods in plain English. In short, he is an all-round good fellow endowed with class spirit and common sense.

LUTHER WILLIS HAWLEY, *Electric*

With what Luther's life from 1885 to his entrance to Tech may have been, we are not concerned. We only know that he lived in "famous Brattleboro," and that he graduated from the High School there. But at the Institute it was feared that too much of Lute's time was devoted to fussing, especially in Leicester and at York Beach. Lute made a hit in the mandolin and glee clubs of '05 and '06, but avoided these in his later years on account of electric and physics lab. and magnetic circuits, three of the subjects to which his time was most earnestly devoted. Lute was a winner among the fair-haired damsels.



Leon W Hitchcock



Arden B. Holcomb



Frank T. Hopkins



J. Lawrence Judge.

LEON WHITNEY HITCHCOCK, $\pi\ \omega\ \pi$, *Electric*

Hitch hailed from a wide place in the road called West Medway, where he received his preparation for Tech and developed his athletic abilities. At Tech his three duties of greatest importance were girls, athletics, and studies. He was an ardent believer in the adage, "Do not let your studies interfere with your regular technical course." Always present at receptions and church suppers, he certainly was well liked by the fair sex. As a member of the several base-ball, foot-ball and basket-ball teams, Mudd did much to lead them to victory. As President of the W. P. I. branch of the A. I. E. E., he was a President in embryo. Hitch was very popular among the boys.

ARDEN B. HOLCOMB, *Electric*

If one happened to visit Ardie's room and saw all the banners from girls' colleges, the fancy hair-pins on the walls, the pretty handkerchiefs, and fans and all that sort of stuff, he would correctly guess that Ardie was an out-and-out fusser. It is doubtful if a worse fusser ever graduated from the Institute, but Ardie managed to put enough time on his work to enable him to bluff through most of his studies. Like Cooper and Smith, he liked to use the weed and practice new songs during thesis and design periods. Ardie was a prominent member of the Glee Club and was one of the Tech quartette.

FRANK THATCHER HOPKINS, *Civil*

A quarter of a century ago cigars were doled out by F. Hopkins, Sr., to all the inhabitants of Brewster-on-the-Cape as a starter for the famed career of his youngest son, "Hoppie." Because he liked work he took the civil course and has at times startled everybody by frequent bursts of mathematical knowledge, such as his determination of inclined sights, in which he proved four "Profs." wrong—a rash thing to do. In cross countries his grit never left him until he had at least secured eighth place. When he was not erasing errors in the drafting room, he could be found at Old Boylston. His great work on the Civil Team made him a hero in the eyes of many, especially "Baldy." He is undecided whether to go into the cranberry business or on the police force, as he has been sergeant-at-arms and feels competent to withstand the smiles of any nurse girl.

JOSEPH LAWRENCE JUDGE, *Electric*

'Twas on a beautiful October day in the year 1884 that "Lolly" Judge became a citizen of Worcester, and he has stayed right with us ever since. Lolly started his Tech career with the class of 1907, but preferring our good fellowship he became one of our number in our Junior year. He is a witty little fellow (about 5 feet 4 inches) and ejaculates many little sayings almost good enough to be put in a book. Somewhat interested in athletics, he ran in cross countries and in the 1906 class games. He spent the summers of '06 and '07 at the Westinghouse, but although he preferred our company to that of 1907, he has again showed his fickleness of mind and left us to join 1909.



Dumont P. Lamb



George S. Langley



Walter H. Lathrop



William Law

DUMONT POTTER LAMB, *Civil*

Depe is Deerfield's only representative in the school, and the Selectmen should feel proud of the fact. He has braved the civil course for three long years, and has never said anything very violent about those who were responsible for its being so interesting. He was a stroug kicker against scabbing, and had a few talks with "Plumb Bob" on the question. Enjoyed the privilege of motoring home when he pleased, always keeping still as to what home it was. Depe did some heavy backfield work in the famous division game and couldn't ever understand how it happened. He always wondered why English was not substituted for mechanics in the civil course. He sleeps less than any man in the class, as he claims that sleep is only a habit. D. P. hopes to apply his knowledge in the West when he graduates, but the postman has a very different opinion.

GEORGE SWAN LANGLEY, $\pi\ \omega\ \pi$, *Mechanic*

Cy first squeezed an auto horn in Newport, R. I., March 30, 1883. They say he had those goggles then and his tender feet that cause him to move about so incessantly and noisily. However, the main characteristic was acquired. Picture to yourself a small enclosure beneath a bench in freshman woodshop, with all exits nailed and a hole in the bench through which a stream of clear water is being carefully guided. Our friend is in the path of the stream, yet none of it touches him, for Cy is thin; yes, he is very thin. But it is little wonder George is so rare, for steadily has he carved his career up the stepping-stones of newsboy, agent, collector, clerk, repair man, chauffeur, playing whist, talking with young ladies, and class of 1908. He has made many friends in Worcester and Hopedale, but Holden conductors have seen such things before. Cy sang in the Glee Club and was manager of the Newton Hall Bath Tub, 1906-7.

WALTER HARRINGTON LATHROP, $\Phi\ B\ E$, *Mechanic*

"Lolly" was born in Worcester some twenty odd years ago, and his baby face, smiling with good nature, has scarcely changed except to develop a very unseemly growth of black bristles and a slight double chin. He wandered through the Bulkeley High School at New London, and eventually landed in M. I. T., where he spent a year; but he cast his lot with us in our Sophomore year, and has made a most welcome addition to our number. His hobby is gasoline engines and one of his innocent diversions is to entangle some unsuspecting Prof. in the intricacies of practical gasoline engineering. "Lolly" is one of the leading lights at the Hall, and is a member of the Forage Committee—the terror of all the fruit growers within a radius of two miles.

WILLIAM LAW, *Electric*

Bill was born in Oldham, England, in 1885, but soon became one of the Worcester boys, and is one yet. He attended the Worcester grammar schools and the Worcester South High School, '03. He served a half-apprenticeship as machinist for the F. E. Reed Company in Worcester, and then decided that he did not want to work for a living quite yet. He, therefore, entered Tech and immediately got busy with athletics. He won points for us in the cross-country runs, was our star twirler on the class teams of our Freshman and Sophomore years, played forward on our class basket-ball team, sub. on the 'Varsity basket-ball team, and captain of the 1907 'Varsity baseball second team. Besides all these athletic achievements, Bill liked to hunt; that was his hobby. He liked to hunt not only birds, but rabbits and other animals that lived under ground. He was a member of the W. P. I. branch of the A. I. E. E., and spent his summers with the Page Electric Company, electrical department of the Standard Plunger Elevator Company, and the American Telegraph & Telephone Company.



W. Fred Lawley.



Arthur L. Lewis



Frank E. Lowe



Byron L. Moore

WALTER FRED LAWLEY, *Σ A E, Chemist*

Walter Fred Lawley started his career as an athlete about twenty-four years ago away up in Conway, Mass. But ''Freddie'' followed natural tendencies and drifted towards Mount Holyoke, receiving his early education at Northampton High School.

The ''Doc.'' has been very prominent in both foot-ball and basket-ball, and to him is due a large share of the credit for the good work done by these teams.

''Freddie'' has an especial predilection for ''electricalytical'' work, and was sorely grieved when the Junior course proved to be only two periods a week.

On the whole, when ''Freddie'' turns his hand to anything, there's going to be something doing.

ARTHUR LAIGHTON LEWIS, *Φ Γ ⅃, Mechanic*

Some years ago the insignificant hamlet of Walpole was honored by the appearance in its midst of this embryo engineer. After graduating from the Walpole schools, he postponed his entrance into Tech in order to become a member of '08, and during this period whiled away the time in a book bindery. While at this humble occupation he learned the all-important truth that books are not made to study, but to keep the book and supply department out of insolvency, and has governed himself accordingly; but do not think, gentle reader, that Louie is at all a dullard, for he has a true engineering mind, which has successfully steered him through crises that have proved disastrous to the burners of the midnight oil. In his leisure time Louie has dabbled in athletics and, as a member of the class baseball and foot-ball teams, has won glory for himself and fresh laurels for '08.

FRANK EDWARD LOWE, *Φ Γ ⅃, Mechanic*

They say Frank was born in Springfield Sept. 18, 1885, but the Greendale cars were late and he did not find his speech till two days later, so he celebrates the 22nd and has been trying to make up for those two speechless days ever since. There are three great objects of Bull's (he says that is his best nickname) affection: the South High School in Worcester, where he was a leader; the American Steel & Wire Company, where he has risen from water-boy till at the time of going to press he is testing their 5000 horse-power blooming mill engine, and—well, we do not know much about that third object. Bull played on the Freshman and Sophomore foot-ball and base-ball teams, was a hard working member of the Junior Prom. Committee, and his voice has been heard on nearly every subject of class or school interest. Here he comes now.

BYRON LEANDER MOORE, *Civil*

Byron Leander Moore (must have been given $100 for that middle name), twenty-one years old, was born in Whitinsville, Mass., which is one of his good points. He seems to be the grind of the civils (there's no connection between a crank and a grind), but he never seems to grind on the right thing. Most any sort of a nickname hits him, ''B. L.,'' ''Curly'' (the girls like that), and the fellows down home call him ''Biddy,'' which is quite appropriate. He is noted for his devotion to astronomy, hydraulics, and a girl between Worcester and Whitins,—at least it takes him from 4 to 12 o'clock to come from home with only one stop. He is also one of Mother Day's most promising ''comers,'' I hear; but there is one thing we would like to know: Does it take from 7 o'clock p.m. until 1 o'clock a.m. to take a two-hour dancing lesson?

The most prominent thing about Moore is his feet. The mechanics nearly got one in football, at least they pulled his leg a bit,—guess it's been pulled a couple of times since and left him almost broke.

Then there is that little smile of his, and when he says ''Ah-a,'' we know he is going to bone us for class assessment, athletic dues, and the like, and we learn to fight shy of him.



Morris H Neal



Richard K. Newman



Albert A Nims.



Carlyle M. Nourse.

MORRIS HUMPHREY NEAL, *J K E, Mechanic*

"Bamby" began his life work in Collinsville back in '85, and after a preparatory course at Washington Academy he entered Bowdoin, but found the work there so hard that he left and came to Tech to recuperate, joining us at the beginning of our Sophomore year. He was gladly received by us and has proved himself worthy of membership in '08 as well as an able protector for his juvenile running mate, "Lolly." Having specialized on the mandolin while at Bowdoin, he immediately became an active and valuable member of the Musical Clubs, and was also a member of that remarkably efficient committee which made our Junior Prom. such a pronounced success. As chairman of the 1908 Banquet Committee he further distinguished himself and assisted in making our last Tech banquet one which we shall not soon forget.

RICHARD KING NEWMAN, *Mechanic*

Dick is one of the old men of the division, having first appeared up in Bennington, Vt., way back in '82, and his restless nature caused him to begin immediately a series of wanderings which finally landed him in Hopedale, where he completed his early education. From the high school Dick went into a machine shop and learned the tool-maker's trade, so he claims. At any rate, it has stood him in very good stead, as it has saved him some eight hours of shop every week. He spends his evenings at the theatres and no performance is complete without Dick in the audience. He is at his best in a rough-house, which invariably ends disastrously for Dick; and his favorite study is kinematics, which he has insisted on taking two years in succession.

ALBERT ARMSTRONG NIMS, *Electric*

According to the records of Montague, Mass., Bert was born in that town on the first day of August in 1886. After due preparation in the grammar and high school there, he joined the happy band at Tech. From the first he has shown that he had the grey matter in his dome, well wrinkled. Aside from his work in his studies, he has been very active in furthering the interests of the Y. M. C. A. on the Hill. In his Senior year he held the office of President of the Association. Although a hard worker, Nims, it is said, has often found time to bestow upon the fair sex, and more than once has he managed to miss the "last car" on the Boynton Street line. Bert is also very fond of music, and he often breaks forth in song when he feels sure that he will not be arrested for disturbing the peace.

CARLYLE M. NOURSE, *Chemist*

Nourse, poet, author, artist, and musician, came to Worcester about twenty years ago. After receiving his diploma from the Worcester High School it was only natural that Mac should put the finishing touches on his education at Tech.

During our Freshman year Nourse was one of our "stars," but since then he has put his direct attention on more important matters.

It is rumored that once "Mac" put in his full time on the Hill, but this has been quite generally doubted. At last accounts Nourse was studying music with the view of going on the vaudeville stage. Numerous drawings testify to his artistic ability.



Goland A Packard



Joseph P Regan



Wallace D Roberts



W Clifton Rogers

ROLAND ALFRED PACKARD, *Δ T, Electric*

In Indian Orchard, Mass., the latter part of May, 1885, Pack began his diet of Mellen's Food, and judging from his appearance he has stored away a goodly supply since then. Some of the events our Mellen's Food Boy will remember for a while are his days on the class and 'Varsity football teams, his summer camps down East and his free bath in the Newton Hall bath tub. Pack was well liked by all the boys. Always jolly and full of sport, he was one of the first to go in for a good time, and the last to get into trouble.

JOSEPH P. REGAN, *Electric*

"Joe" was born in Worcester, Mass., in 1886 and still hangs to the dear old city. Joe ploughed through the Worcester grammar schools and then through the Classical High School. He is characterized by his never being late to recitations. One of Joe's favorite studies was physics. In fact, he so dearly loved that department that it is really surprising that he did not take the General Science course. Joe spent the summer of 1907 chasing back and forth on some boat between Boston and New Brunswick.

WALLACE THOMAS ROBERTS, *Δ T, Mechanic*

Bob first saw the light of day in New Bedford, but almost immediately became convinced of the superior attractions of Holyoke—and vicinity. He "prepped" at either Smith or Mt. Holyoke, or both, and landed in Tech along with the rest of the bunch in '04. From the very first he won renown as a fusser, but his career during his Senior year has surpassed all previous efforts and has nearly reduced his trusty guardian, "Champ," to a shadow. Bob's social aspirations even drove him to joining the Glee Club, of which he was a member during its meteoric career; but it is reported on good authority that his only qualification was that he looked so sweet in a dress suit.

WALLACE CLIFTON ROGERS, *Civil*

"Fat" began to fool the world some twenty-two years ago and to this day is an interrogation. Until he ran against electricity nothing ever shocked him except a few peculiarities of Dr. Kinnicutt. As a civil, he was a success, both in the classroom and on his summer "jobs." He has been everything from a "dago-boss" to a canvasser for patent medicines. On the picture committee he certainly "did a good job." That's all. As center on the famed civil football team, his two hundred pounds was like a stone wall. Fat began his courtship with "Stock" at summer camp and became his wife at the beginning of his Senior year. Between appointments at Hahnemann Hospital and getting "supers" for Worcester Theatre, Fat did a little studying on stress. He was a strong leader against "scabbing."



W. C. R. Rowlan.



Phelps J. Powell



George A. Ryan



Benj. F. Sargent Jr.

WALTER EDWIN READING RONIAN, *Α Τ Ω*, *Civil*

Walter Edwin Reading Ronian, Esq. (I guess that's all), Senior civil smoke-stack, Railroad Bill, or just Bill when you are in a hurry. Through no fault of his he hails from Woonsocket, R. I., where he prepped for Tech. Say, there are just two things that adore tobacco, one is a long, green, fat, slimy, juicy worm, and the other is Bill Ronian, but then he is only twenty-two, and will improve with age. And cuss—gee! but he can go it when he's mad; they have to cut the blue air out in cakes and carry it away with a derrick. Bill loves the mechanical department, too, while mechanics and hydraulics seem to be his favorite subjects. The Meriden News has it that Miss X. of that city is engaged to a Mr. W. E. R. Ronian in the Worcester Polytechnic Institute. ''Congratulations, Bill. Many happy returns of the day!''

PHILIP JONES ROWELL, *Φ Γ Δ*, *Civil*

''Cupid'' came from the large city of Amesbury, and showed his greatness of mind by choosing Worcester Tech as his educator. His honesty has been his best friend, and as a reward he has held many class offices, including Vice-president, Secretary, and President. He is noted for his fondness for the other sex, due probably to his ''charming manners'' and appearance. The Sophomore banquet was a success due to his untiring interest. In baseball he made his ''W'' by stopping ''high-balls'' in right field. In football he attempted to defeat Holy Cross, but his star work was on the ''civils.'' At the Half-way Through he frankly expressed his opinion on physics and all those connected with it. He keeps early hours, and worries only why every subject is not as interesting as Least Squares. When his mind is not at Newton Avenue, it is somewhere in the Golden West. His leadership of the class in his Senior year showed his tact as a leader, for which he is noted. His future depends upon the words ''Yes'' or ''No.'' Let us hope it is ''Yes.''

GEORGE HERBERT RYAN, *Chemist*

''Stubby'' invented his first pun (he kept it to himself) down in Millbury not far from a score of years ago. Ryan is a graduate of the Worcester Academy. During his stay at Tech he has done much good solid work, and has managed to pack away more information than most men. ''Stubby'' has been making a profound study of the fundamental combustion reaction and its side reactions, and may be looked upon as a reliable authority on this subject.

BENJAMIN FRANKLIN SARGENT, *Σ Α Ε*, *Civil*

Twenty-one years ago the world, as well as the town of Amesbury, was honored by the birth of a future genius. Seventeen years later Tech shared the same honor, and ever since Ben has been one of the foremost men of his class. He immediately showed his qualities of ''long-windiness'' by winning second place in the ''Countries,'' 1905. This was partially due to training from nightly runs to Newton Square. He repeated this in his Junior year. Ben has always been the prime instigator against ''scabbing,'' especially in Junior railroads. He spoke at the Half-way Through on his pet subject, ''Women and their Winsome Ways.'' He was chosen as chairman of the ''Junior Prom.'' as well as being considered the ''high mucky-muck'' in all social events of the four years. Ben made his ''W'' on the 1907 track team, and his reputation on the famous civil football team. In his class he was especially interested in the clock, yet many a man has received a good boost from Ben's business-like brain. Railroad economics under ''Reddy'' was his favorite. In his Senior year he helped to make the business end of this Aftermath a success, besides being engaged in a pressing business in Boston. He says he intends, on graduating, to build a little cottage by the sea and—fish. His classmates hope he makes a catch.



Levi H. Sawin



Herbert P. Sawtell



William S. Sellars



Donald D. Simonds

LEVI HEYWOOD SAWIN, *Mechanic*

In Gardner, Mass., on the last day of July, 1884, a boy was born. He was christened Levi Heywood, and as he waxed strong in mind and body, many were those who marked his brilliant future. But in Gardner there is a cemetery. Levi, now known as Happy, who had graduated from the high school of that town, worked in the chair-shop and machine-shop and became, as he puts it, a jack-of-all-trades, went to work in the cemetery. Poor Happy, sometimes now as he is cornered by a professor or receives a severe tongue jab from a classmate, we get a passing glimmer of the former brilliancy and scintillating wit. He says that it has required all his surplus energies at Tech to keep still, and only Happy knows the truth of this statement, though occasionally we get a faint idea as a drawing box, curb-stone or telegraph-pole persists in placing itself in the path of his progress. May his supply of good humor be as inexhaustible as it seems!

HERBERT PRESCOTT SAWTELL, *Mechanic*

Herb is a native of the peaceful little town of Clinton, where he obtained his early training. After passing through the mill of the Clinton schools he entered Tech with the class of '07, but on account of illness he was compelled to rest a year, joining us in the middle of our Freshman year. Herb loves above all other things to argue, and no matter what the topic or who is his opponent, he will remain unconvinced as long as his breath lasts. He has always taken an active interest in athletics and was the guardian of the plate two years on the class baseball team, and a member of the 'Varsity football team.

WILLIAM S. SELLARS, *Chemist*

Bill is one of the Worcester boys. A student of electricity in the high school, he had back of him enough experience to choose and pursue a chemistry course at Tech.

Bill has paid close attention to practical points and is now able, at short notice, to wind a dynamo or make artificial pseudo-synthetic lemonade. Lately he has become quite expert at figuring out various kinds of industrial problems.

Bill was first tenor on the Tech Quartette and can give anything from a good imitation of a cracked graphophone to a bona-fide sacred solo. Several drawings bearing his name give evidence of Bill's artistic ambitions.

DONALD DWIGHT SIMONDS, $\pi\ \omega\ \pi$, *Mechanic*

Don is one of the Worcester boys, and the very mention of his name calls up vivid recollections of a red bicycle and an enormous green book-bag ploughing down Highland Street, summer and winter, storm and shine. He also bears the nickname "D. D.," but its exact application in this particular connection is rather difficult to determine. Don is always ready for a good time and, when he is wide enough awake, his face is always ready to break into a grin, except when getting his marks. He does not allow his studies to interfere with his regular school work, and has been a valuable man with the weights in both the class and 'Varsity track teams; and is also one of the editors of this book.



Arry Smith.



Richmond W. Smith



W. Denholm Smith



Frederick A. Spencer.

AVERY SMITH, *Chemist*

Avery Smith, "Schmidt," began enjoying life in Grafton, Mass., on Sept. 14, 1886. The Grafton public schools gave Smith his early education. Avery has twice taken upon himself the Herculean task of collecting, as treasurer, money from the chemists in behalf of the class. "Schmidt" is one of those fortunate individuals possessed of a sunny disposition; nothing seems to trouble him long. It is said that his capacity for grub is nothing short of marvelous. Although not a particularly ambitious student, his shoulders are already beginning to droop under the weight of the knowledge he has been compelled to assimilate. Smith is looking forward to a job in the powder mills, as this work seems to offer a good chance of a raise.

RICHMOND WATSON SMITH, $\pi\ \omega\ \pi$, *Mechanic*

Rich is one of the Worcester delegation, although he claims Princeton as his birthplace. His career at Tech has been as calm and peaceful as his smiling countenance would seem to indicate, although the faculty are beginning to grow suspicious of the frequent illnesses which he has had during exams. He is easily recognized anywhere in the city by the enormous felt hat, which prevents his brain from becoming chilled during the brief periods of inactivity. As an athlete, Rich distinguished himself in the cross-country runs and he also played two years on the class basketball team.

WILLIAM DENHOLM SMITH, *Electric*

"Den" got hold of the bottle in Worcester, soon after the December of 1886, and hated to let up on it. He still lives just on the inside of the outskirts of the same old town. He graduated from Worcester Classical High School and entered Tech bravely. He joined the W. P. I. Musical Association, where his vocal talent was developed to such a degree that he became a member of the famous W. P. I. Quartette. Not very crazy about "grinding," he didn't care whether he went out or stayed in nights. He was a great man for hitting the pipe, and became a sort of a human smoke-stack.

FREDERICK ASHER SPENCER, $\lrcorner\ T$, *Electric*

Frederick Asher Spencer, alias Spence, alias Steinmetz, alias Fritz, alias Doc, etc., has been a former Brattleboro boy since about the middle of 1885. Along about 1886 he showed his electrical talent by borrowing current from between the street car rails and hydrants in his town. At Tech he was a bright and shining star in all of his studies, and was a devoted lover of most of the electrical instructors. He spent his Junior year mixing concrete and loafing. It is not safe to tell all that he did during the Senior year, but if you could only see his engagement book you might think that he owned Heinz's pickle factory. Doc made a most earnest study of one of the Halogens, devoting most of his time along this line. He served as Secretary of our class for the first half of the Junior year; also he was a member of the Preliminary Aftermath Committee, and one of the Board of Editors, which latter fact he regards as the funniest incident that happened during his course.



Ray L Stinchfield.



David T. Stockbridge



Earle K. Strachan



Guy Trott

RAY LEWIS STINCHFIELD, *Chemist*

''Deac'' was born in '85 in Campello, Mass. (wherever that is). Deac is an honor graduate of the Brockton high school. He came to Tech expecting to take a course in electro-chemistry, but as he was disappointed in this he has taken the next best thing, chemistry, with mechanics and electricity. Although Deac is a shark he usually has a fit of the blues after exams and is afraid he is going to be flunked out, but things look brighter when the results come out. Stinchfield has had a much wider experience than is the lot of most Tech men, having done various kinds of practical work before coming to the Institute. ''Deac'' is one of our best men and will graduate with our best wishes for his future success.

DAVID FIELD STOCKBRIDGE, *Civil*

David Field Stockbridge, 24 years old, 6 feet tall, weighs 152 pounds, or 25.333+ per lineal foot and 76 pounds per human foot. He is a shark in mechanics, structural design and mechanics lab. He was born and brought up on a farm in Northfield, where he learned to work—a thing which he has forgotten since. After finishing Mt. Hermon he came to Tech, and if that pretty little Swede girl had not jilted him and married another fellow, it is doubtful if he would have ever finished his Freshman year. Her husband died a short time ago, and since then he has perked up wonderfully.

''Uncle David'' finds just one trouble with Tech, and that is that he is not allowed half time enough for dinner; he just gets his soup well stirred and it is 1.30 and time to go back. His pet pharse is, ''Shut the door! ! ! '' ''Reddy'' is his favorite prof, whom he likes almost as much as he used to adore Willie Stout.

He is one of Mother Day's boys, too, and it seems to pay him quite well as far as he has gone. At the Mt. Holyoke prom he made quite a hit, which was a great ad. for Mother Day. (Don't know whether she paid his expenses or not.) Finally as agent for the ''E. & R.'' he does a flourishing business with the second-hand stores in collars and cuffs.

EARLE KENNETH STRACHAN, $\pi\ \omega\ \pi$, *Chemist*

Strachan came to us from the Brockton high school. His first move after looking over the place was to get busy, and he has been busy ever since. ''Strach'' has held the position of class historian. He has also served on one or two occasions as temporary chairman. Lately ''Strach's'' pet ambition has been to become an organic chemist, and it is safe to say that he knows more of the contents of the ''Annalen'' and the ''Berichte'' than any other man in the class. In about five years we shall expect an enlarged and improved ''Organic Chemistry'' from his pen.

LUY TROTT, $\pi\ \omega\ \pi$, *Chemist*

As one of the bunch that entered from the Worcester high school, Luy came with a record for scholarship behind him. He has made a good record, both as a worker and a player. He was a member of the Freshman baseball team and in Junior English he showed the effects of his extensive experience in debating, his fiery oratory making his opponents tremble. Once or twice we have nearly forgotten ourselves while Luy was wondering what to say next.

Luy has always had the good of the school and class at heart, and was of the right sort. There are not many things that the class has succeeded in doing that have not been due, in a good measure, to Luy's being back of them, pushing.



John J Truesdell



J Frank K Williams



Raymond L. Witham



Frank E Wood

JOHN GARDNER TRUESDELL, *Electric*

John hails from Greenfield, Mass., and gives Sept. 5, 1884, as the date of his birth. He attended the public schools of his native town and, according to his own statements, prepped for Tech in the high and Sunday schools. Johnnie's cheery disposition has always made him a winner. He has been associated with the Y. M. C. A., and for one term at least he held down the Information Bureau. He spent last summer down South in telephone work, and some things at least seem to have made quite an impression on him. His lectures on the way "they do things down South" are both entertaining and instructive. His future success is a certainty, if he will only push the interests of his "pantomime trolley."

JAMES FRANK WILLIAMS, ⅃ *T*, *Electric*

Shorty chose Stamford, Conn., as his camping-ground about September, 1886. During the spare moments of his four-years' course with us he was employed at different times as draftsman, passenger brakeman, and construction-gang foreman. What he will do when he launches out into the world is a weighty question, but it is evident that only success will confront him. Shorty was a favorite both among the fellows on the Hill and the girls elsewhere. As assistant manager of the track team in 1907 and manager in 1908, he certainly earned his "W;" but his trip to Troy, it is feared, started him on the wrong road; he saw his first burlesque show there.

RAYMOND LEE WITHAM, B.A., *Electric*

Witham came to us in our Junior year from the wilds of Maine, where he had been teaching since graduating from Bates College. What his past has been, aside from teaching, we cannot say, but judging from his actions of the last two years we feel safe in presuming that he has always been a law-abiding citizen. Quiet and docile, yet always ready to have a good time, he has made a large number of friends. Once in a while he raises a mustache for excitement, and then harvests it. The only man that feels at home in delivering an abstract is Witham. This is doubtless due to his training received while teaching. In connection with the work in Electro Lab., he and Hawley have conducted a series of tests to determine the melting-points of various types of electrical instruments, indicating wattmeters being a specialty. One of his most important tests was the attempt to reverse the direction of the current through a meter by reversing the leads on a water barrel in series with it.

FRANK EDWARD WOOD, *Electric*

Although you might not have known that there was such a place as Whitinsville in Massachusetts, the fact still remains that "Effie" was born there in 1886, A. D.; and strange to say, he still has a strong liking for the place. A good bit of what he knows he learned there, but after he had put four years in the Northbridge high school, and had absorbed all he could get there, he was obliged to come to Tech to enjoy life for four years more; and he has succeeded admirably. During most of his summers Effie worked, or at least put in his time, at the Whitin Machine Works. He had the right idea of life, in that he was always happy.



John E. Woodbury.



Yoshiko Yamada

JOHN EDWARD WOODBURY, *General Science*

Born under the very shadow of Tech Hill, John was raised almost in the Tech atmosphere and, after passing through the public schools, drifted quite naturally into our midst. He is the embodiment of modesty itself, but from the very first was recognized as one of the class sharks, although he has not allowed his studies to prevent him from indulging in his two hobbies, automobiling and photography. He is a member of the Board of Editors of this book and to his credit belongs much of the photographic work.

YOSHIHO YAMADA, *Electric*

The town of Owari, Japan, was honored about twenty-five years ago by a cute little Jap, whose cuteness still clings to him as the foam does to his mustache. Eighteen years without knives and forks was sufficient to make Yammie say, ''I am a man, an American's education for me.'' Consequently, Cushing Academy's tuition fees were raised a small amount for four years. At the Academy Yammie did everything, much of which never reached the public eye. From his courses of music, recreation, and lunch, Yammie came to Tech—which to him means ''Kwnowana'' . . . . As sergeant-at-arms he fought down riots with a spirit that would have done credit to his ''Uncle Togo.'' Yammie has a great leverage on the friendship of ''Jerry'' as well as a chance to run the spot light at Poli's. At the class banquets he has expressed his opinion on all questions from Prof. Phelon to ''Why I'm afraid to come home in the dark.'' At regular intervals Yammie has appeared with a dark shadow of Standard No. .0023 on his upper lip. But with it all he is considered one of the best natured and loyal mascots a class has ever had.

Ode to a Use-to-Was.

(Due apologies to Whittier)

The son, that briefest Freshman day,
Rose cheerless; this wearer of red and gray,
Eyes, darkly circled, showed too soon
The effects of a night with the Elm Park moon.
Stumbling under the thickening sky
He felt an ominous prophecy.
A portent seeming no less that threat,
So straight to the mail box—then you bet
He got a chill, no one can doubt,
For he felt he was slowly being shoved out.
A hard, dull, bitterness of cold,
That checked the rush of his speedy pace,
As shown by the Tech lad's haggard face,
The coming of conditions told.
The wind blew E's; the lad was sore,
And straightway then we think he swore.
We've felt the same thing—we've been there,
It's a common trick of Technical air.
Meanwhile we did our nightly chores;
Rough-housed the halls and in the rows
Raked down vengeance on Freshmen brows;
Heard the Freshmen curse the day
That they ever happened to wander this way.

At last the cobs and T. D. pipes
Sent forth still dull and duller lights;
The old alarm clock, ever in view,
Ticking its weary circuit through,
Pointed like an obedient son
Its crooked black hand to the hour of one,
That sign the bridge whist party broke,
The students ceased their pipes to smoke,
Set the alarms for the coming day,
Then went to bed, a while to stay.

So days went on; a month had passed
Since the poor Fresh was heard from last,
But when at length the word did come
The Freshie said his race was run;
He liked Elm Park, he liked the place,
But he simply couldn't stand the pace.
Though he liked his studies, and loved old Tech,
He had failed to keep his place on deck.
So he didn't believe that he would wait—
For it takes too long to graduate.

Those Who Left Us

NAME	ENTERED	LEFT
Elliot A. Allen,	September, 1904	June, 1905
Francis W. Avery,	September, 1904	June, 1905
William Bacon,	September, 1904	June, 1905
William A. Beer,	September, 1904	June, 1906
Howard W. Bell,	September, 1904	January, 1905
Harold F. Bidwell,	September, 1904	June, 1906
Louis A. Bisson,	September, 1904	March, 1906
Robert C. Bliss,	September, 1904	June, 1905
William R. Bowes,	September, 1904	June, 1905
Gilbert D. Boyd,	September, 1904	June, 1905
Philip H. Brakeley,	September, 1904	April, 1905
Walter E. Brown,	September, 1904	June, 1906
Charles W. Burlin,	September, 1904	June, 1905
Cyrus S. Carpenter,	September, 1904	June, 1905
Charles S. Carroll,	September, 1904	January, 1905
Edward U. Charbonneau,	September, 1904	June, 1905
Victor Cobb,	September, 1904	June, 1906
Francis J. Coffey,	September, 1904	June, 1905
Julius C. Cowen,	September, 1904	June, 1905
Harold Cox,	September, 1904	June, 1905
Henry F. Crocker,	September, 1904	June, 1905
William W. Cross,	September, 1904	January, 1905
Burton C. Dakin,	September, 1904	June, 1905
Clarence W. Daniels,	September, 1904	January, 1907
Richard H. Derby,	September, 1904	June, 1905
Edward Early,	September, 1904	January, 1905
Leslie D. Fisher,	September, 1904	January, 1905
Roy H. Fisher,	September, 1904	June, 1905
Wallace L. Flagg,	September, 1904	June, 1906
John F. Hardy,	September, 1904	October, 1904
William Greve, Jr.,	September, 1904	June, 1906
Michael E. Haley,	September, 1904	January, 1905
Philip A. Hamilton,	September, 1904	June, 1906
Henry H. Hay,	September, 1904	June, 1907
Winthrop Y. Haycock,	September, 1904	March, 1907
Carl A. Heilmann,	September, 1904	June, 1906
Wilson C. Ingalls,	September, 1904	June, 1905
Louis A. Jackson,	September, 1904	June, 1905
George H. Jenkins,	September, 1904	June, 1905

NAME	ENTERED	LEFT
Daniel B. Jones.	September, 1904	June, 1905
Forrest G. Kirsch,	September, 1904	June, 1905
John W. Knox,	September, 1904	June, 1906
Francis P. Kurtz,	September, 1904	January, 1905
Gilbert C. Lamb,	September, 1904	January, 1905
Levi Lawrence,	September, 1904	December, 1904
Morton F. Locke,	September, 1904	March, 1905
Frank E. Luddington,	September, 1904	June, 1905
Joseph W. McElroy,	September, 1904	June, 1905
James H. McGarry,	September, 1904	June, 1906
Paul R. Mirick,	September, 1904	January, 1906
Lawrence L. Moore,	September, 1904	January, 1906
James A. O'Neil,	September, 1904	June, 1906
Lebbeus A. Parkhurst,	September, 1904	February, 1907
Frederick J. Pearse,	September, 1904	June, 1905
Ralph Robinson,	September, 1904	January, 1906
Frank L. Root,	September, 1904	June, 1905
Arthur E. Roper,	September, 1904	January, 1905
Howard B. Ross,	September, 1904	June, 1905
Michael J. Sheehan,	September, 1904	January, 1905
William B. Smith,	September, 1904	June, 1906
William C. Smith,	September, 1904	October, 1905
Nathaniel O. Solberg,	September, 1904	June, 1906
Lloyd W. Strayer,	September, 1904	June, 1906
Leslie E. Swift,	September, 1904	January, 1907
Carlos W. Tyler,	September, 1904	June, 1905
Charles B. Wagner,	September, 1904	June, 1905
Ernest C. Willard,	September, 1904	June, 1905
John Woodcock,	September, 1904	January, 1907
George W. Woodward,	September, 1904	June, 1906
Charles B. Weller,	September, 1904	June, 1905
Harold M. Bye,	September, 1906	December, 1905
Walter S. Greacen,	September, 1905	January, 1906
Thomas R. Hannington,	September, 1905	November, 1905
Frank F. Hutchings,	September, 1905	June, 1906
William H. Ticknor,	September, 1905	June, 1906
Frederick W. Carran,	January, 1906	October, 1906
William N. Peck,	January, 1905	June, 1905
Louis R. Dwyer,	September, 1906	June, 1907

In Memoriam

Louis G. Kneeland

Died

June 16, 1907



This name was first applied to us at the beginning of the Sophomore year. During this year our work was almost the same as that of the mechanics and it was not until the Junior year that we first began to hear about the "subtle fluid." Our introduction to it came in the form of J. O. P.'s Elementary Course. It was with great ease that we surmounted this course.

At about this time we plunged into the mysteries of "Complex Imaginaries" after being backed up by a strong course of Vector Analysis under Coney's critical eye. We all became wizards at squaring numbers with five or six decimal places, adding and extracting the square root and coming within 0.5% of the correct solution. Any quantity that was a little weird and out of the ordinary was denoted by prefixing the little letter "j," which was said to denote an imaginary component, at ninety degrees with the other. Doubtless it has often been this imaginary component that has boosted our "impressed" marks up to the required sixty.

The Electrical Laboratory was another source of delight. Fortunately this department was amply provided with fuses and circuit breakers so that the department could keep running during the Laboratory period.

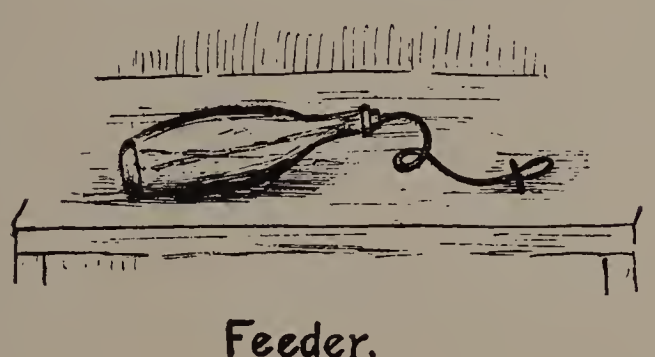
The feeling of being a real engineer began to strike us when we took up the work in Electrical Design. Various types of machines were calculated, varying from a hot water heater to a large generator. It was often found that a good smoke now and then, or possibly a song, served to stimulate ideas. It was here that Friden and Law, after three weeks of rapid work, discovered what they were designing.

During the latter part of the Sophomore year, vague rumors were afloat to the effect that a new Electrical Laboratory was coming. At the end of the Junior year this became a reality. With the advent of this we began to assume more or less of a lordly air, much to the apparent disgust of others, who christened our new quarters as the "car barn." Some one is said to have offered a reward to any one who could furnish reliable evidence that the test car would run. True, it has not been out very much, but we should feel safe in backing it against the "Chaffin's Express."

The equipping of the new laboratory furnished good experience for the division during the three weeks of summer practice at the end of the Junior year. There was work in various lines such as wiring, erecting the switchboard, and the equipment of the car.

One of the most delightful sensations experienced during the Senior year was the soaring through the "Theory of Alternating Current Phenomena," guided by Dr. Olshausen. It was especially enjoyable when we struck the parts that "weren't very hard." We soon got wise, and by the time the course was ended, we could get "anything we wanted" by reducing and "neglecting terms of a tertiary order." Another popular and very practical course that we had this year was that of Electric Railway Engineering. Here, with our minds full of Acceleration Coëfficients, Tractive Efforts, etc., we learned to make allowance for the "riding habit." Telephony also had its charms for many, and it is not improbable that some of those who are now ardently pursuing the theory of this device, are very well acquainted with its operation and know how to "hold the line" successfully for some time. Frenzied Finance held us all spell-bound. Bankrupt lighting companies, unsuccessful railways etc., made to pay to the complete satisfaction of every one; such were the fascinating problems with which we had to deal.

ELECTRICAL TERMS.



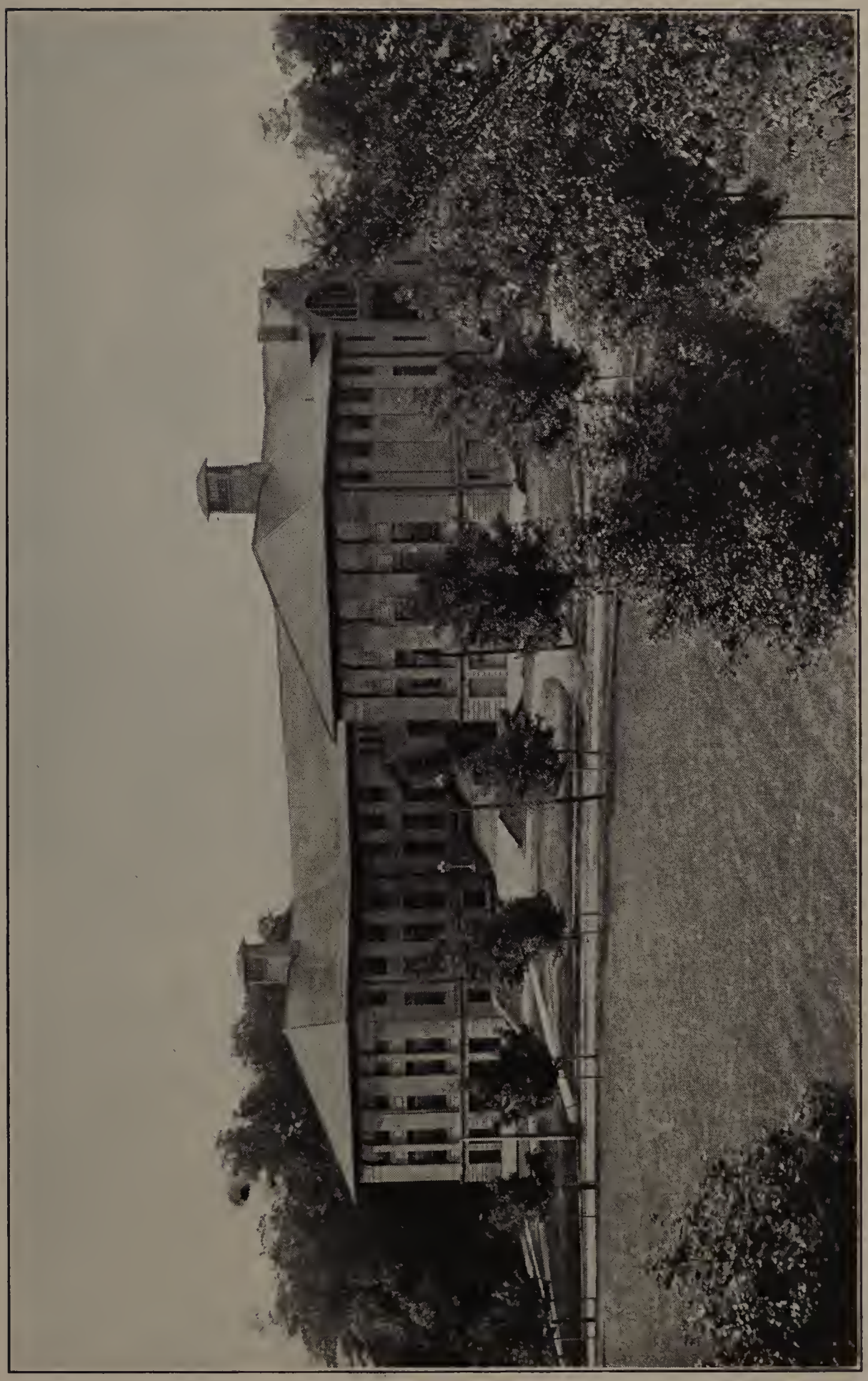
Feeder.

Our bunch has been fortunate in having such men as Darrah and Nims upon whom to fall back in times of distress. We claim to have had the most lofty thoughts of any of the divisions, due to "Willie's" six feet plus. Ammidown's theory on the danger of double windows on school buildings to the standing of the students is quite unique. He claims that the increased temperature due to the extra windows tends to produce sleep, which has been known to be disastrous. We have an important Law such as we find in Foster. The E. M. F. of the division is high because of the high density of our Field. As good as the other divisions are, we can always stay Witham. In connection with Ammidown's theory on hot rooms we might say that we have an exit for hot air in the form of Bingham.

Now laying aside all joking, when we look back over our four years of "Tech" life and consider what we have accomplished, we feel very thankful to the Faculty for the patience and consideration which they have shown us. May we always hold dear to "Tech" and remain ever loyal to her interests!



SENIOR ELECTRICS IN DESIGN



ELECTRICAL ENGINEERING LABORATORY.



TEST CAR LEAVING THE LABORATORY.



INTERIOR OF LABORATORY.



ELECTRICAL ENGINEERING LIBRARY.

W. P. I. Branch of the

American Institute of Electrical Engineers

OFFICERS—1907-1908.

President, L. W. Hitchcock, '08.
Vice President, C. E. Putnam, '09.
Secretary and Treasurer, S. W. Farnsworth, '06.

Executive Committee.

Prof. H. B. Smith, L. W. Hitchcock, R. E. Coolidge, S. W. Farnsworth.

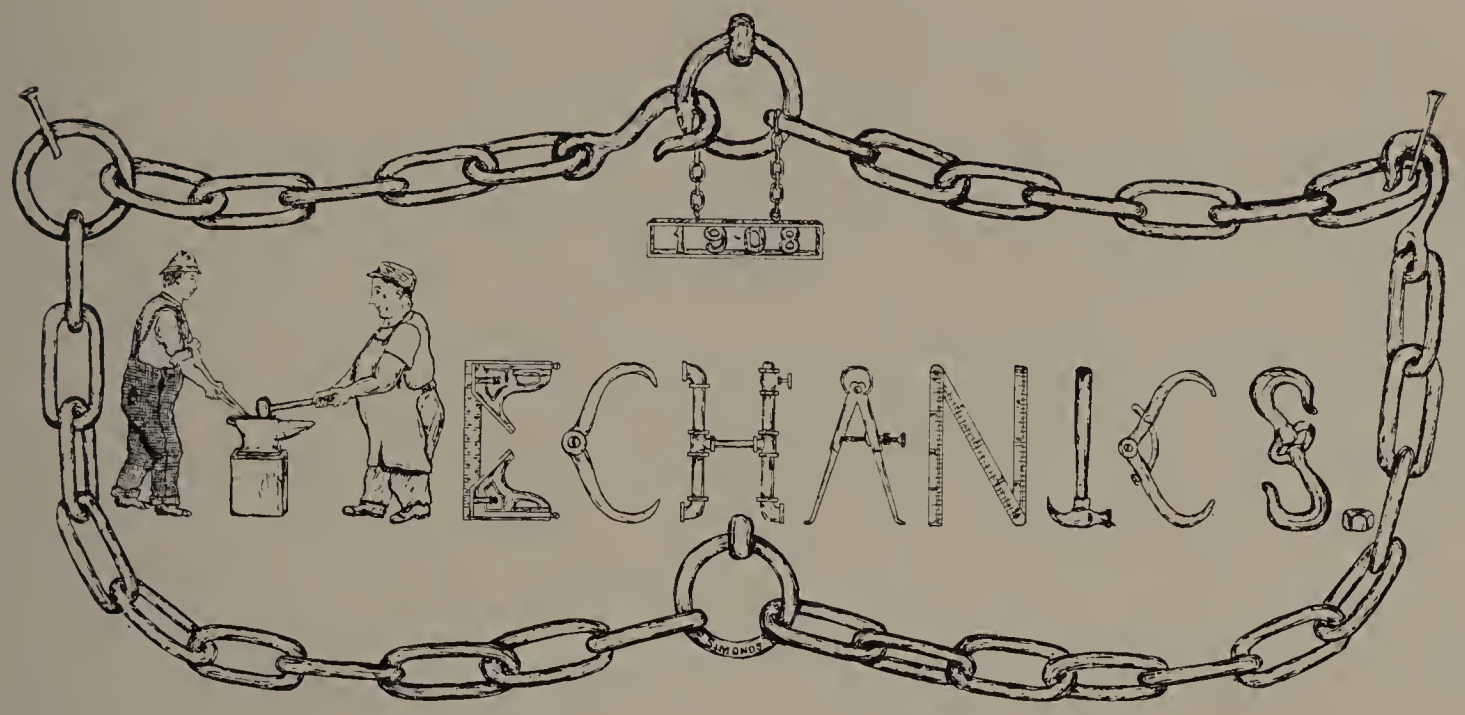
In common with the other courses at the Institute, the Electrical Course maintains a society for the promotion of its branch of engineering. Unlike the others, however, it has the advantage of affiliation with the national organization of similar character.

By the completion of the new Electrical Building, thus giving ample accommodations, the society has received a new impetus. On two different occasions the General Laboratory has been opened at the close of addresses by local professors, and on both of these occasions a large number were present to enjoy such novelties as cider served from a keg suspended from the electric crane, and corn popped over an electric heater. That the society is well recognized, is apparent from the fact that the average attendance for the first eleven meetings was 136.

Practical Hydraulics

Baker—"What is a vane?"
Allen—"Do you know what a weather vane is?"
Baker—"Yes."
Allen—"Well, that is one kind."

Davy—"Can you tell me where to look on a boiler for the scale?"
Neal—"On the inside."
Davy—"Really."



This is not an attempt to praise the doings of the mechanics of 1908, for their deeds are already so widely known that they need not even be repeated. Not only did the Faculty note our good qualities, but the great and glorious Class of 1908 showed that we were a necessary part of it. Four of the six class presidents, since divisions were organized, were from the mechanics, namely, Cole, Cottrell, and Kendall twice; and many of the minor offices have been held by the mechanics. One thing in which we take considerable pride, because it is a unique distinction, is that Kendall now holds both class presidency and class treasurership.

In athletics, too, we have not only had several strong men on the Varsity teams, both playing and managing, but we have had at various times division baseball, football, and basketball teams, and, due to our strenuous work for which all mechanics are noted, we came out winners in most of these contests. We even tried to form a bowling team, but whether or not others were afraid of being beaten, we cannot say. It was certainly evident that none would form an opposing team.

No class organization ever seemed stronger than was the organization of the mechanics. It was so strong that even the head of the department believed that it was a form of union. We went under the policy "united we stand and divided we fall," and that is perhaps one reason why there are still twenty-two mechanics.

In summer shop of our Freshman year the mechanics first got together. For a time we were probably sorry that we didn't have "Hink," but "Chickadee" was pretty good; whether because he didn't know enough or because he didn't want to, he certainly did not find our hiding-places until the last two or three days. Almost any afternoon you could go into the woodshop storeroom, climb up above the wood and see a game of poker going on, or if you should walk behind the barn of many

colors, you might find one who had been out the night before, or one who was trying to get rid of some of the hours before handing in his piece. However, "Chickadee" did his best, and of course he was new at the business. Besides, Noah taught us how to take the engine apart without dirtying our fingers.

"Dingle" says we spent most of our time in reading dime novels our Junior year. It is our purpose at some future date to present for his library a set of dime novels in order that he may have the privilege of gaining as much knowledge from them as did we. We have enjoyed our course with him even at those times when either some of his bearings needed oiling, or else the tooth pressure on some of his gearing was too great and he slipped a cog and called us fools and parasites.

To end up the year, the 1908 mechanics held a banquet at the Warren Hotel. This was held April the 29th in order to get it in before May 1st, although, of course, for no special reason. At this time wit flowed as was never before. Jack Harvey was toastmaster, and the different responses were as follows: "Graft in the City Government, also at Tech," by H. C. Kendall; "Engineering in General," by W. W. Bird, who was our guest for the evening; "Hydraulics," by B. R. Andrews; "How a Tech Man Finds Time to Fuss," by W. T. Roberts, and "The Future of the 1908 Mechanics," by F. E. Lowe. Much hot air was dispersed and a very enjoyable evening was spent.

Our trip to Walpole, spending three days at the Walpole Water Works, and making a test on that plant, was a decided success. Both nights were spent in wrestling, cock-fighting, and doing several other strenuous stunts, Prof. Allen and Davy participating in all.

The mechanics have the distinct privilege of having a Senior room. It is used for shop management (ostensibly), but is really used as a general room for the Senior M. E.'s, each having a key to the room and a locker inside. After all, they deserve it, for who says the mechanics are not the hardest workers on the Hill?

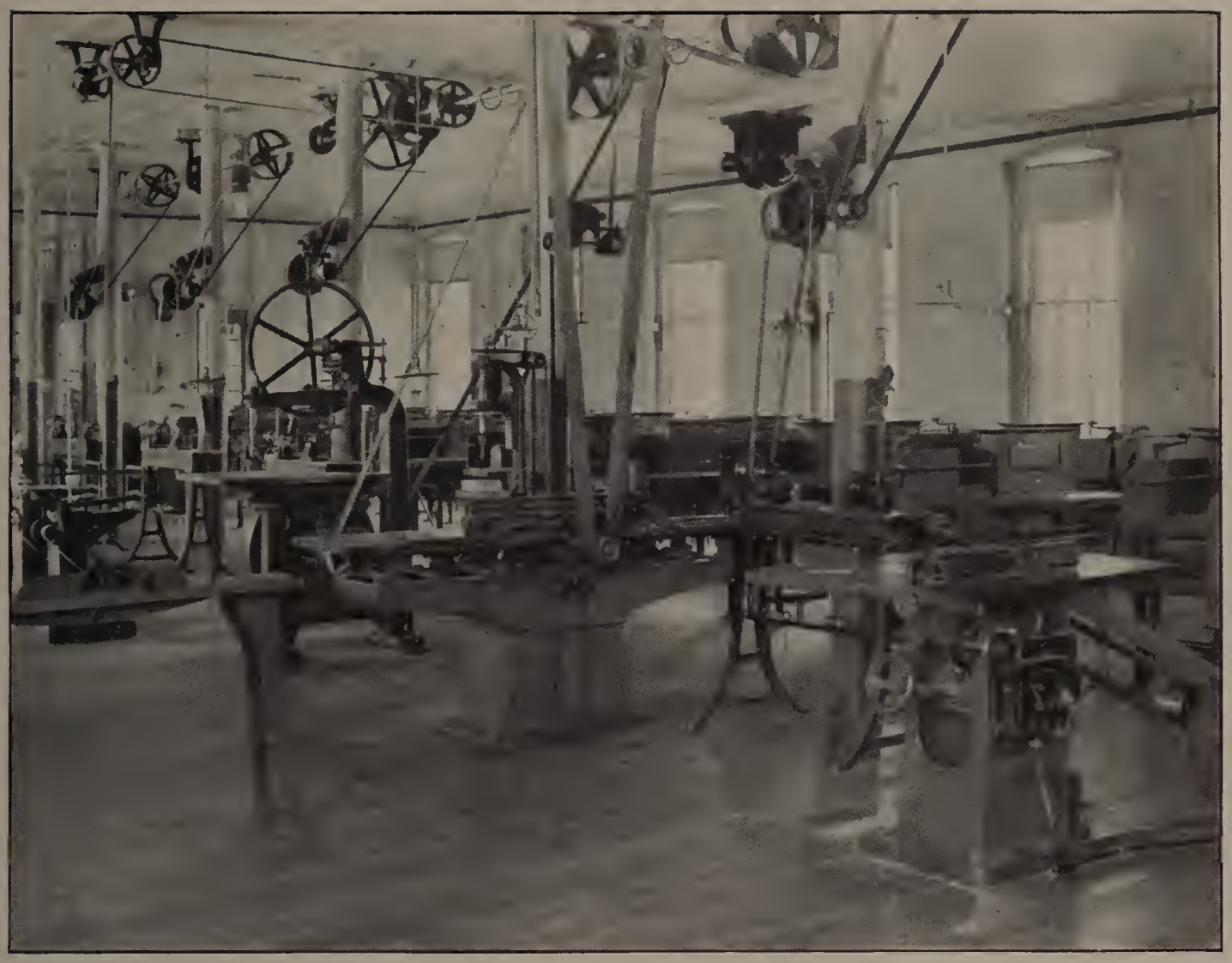

MECHANICS.
1908
PHOTO BY
T. O. WOHLBRUCK,
WORCESTER, MASS.



MECHANICAL ENGINEERING LIBRARY.



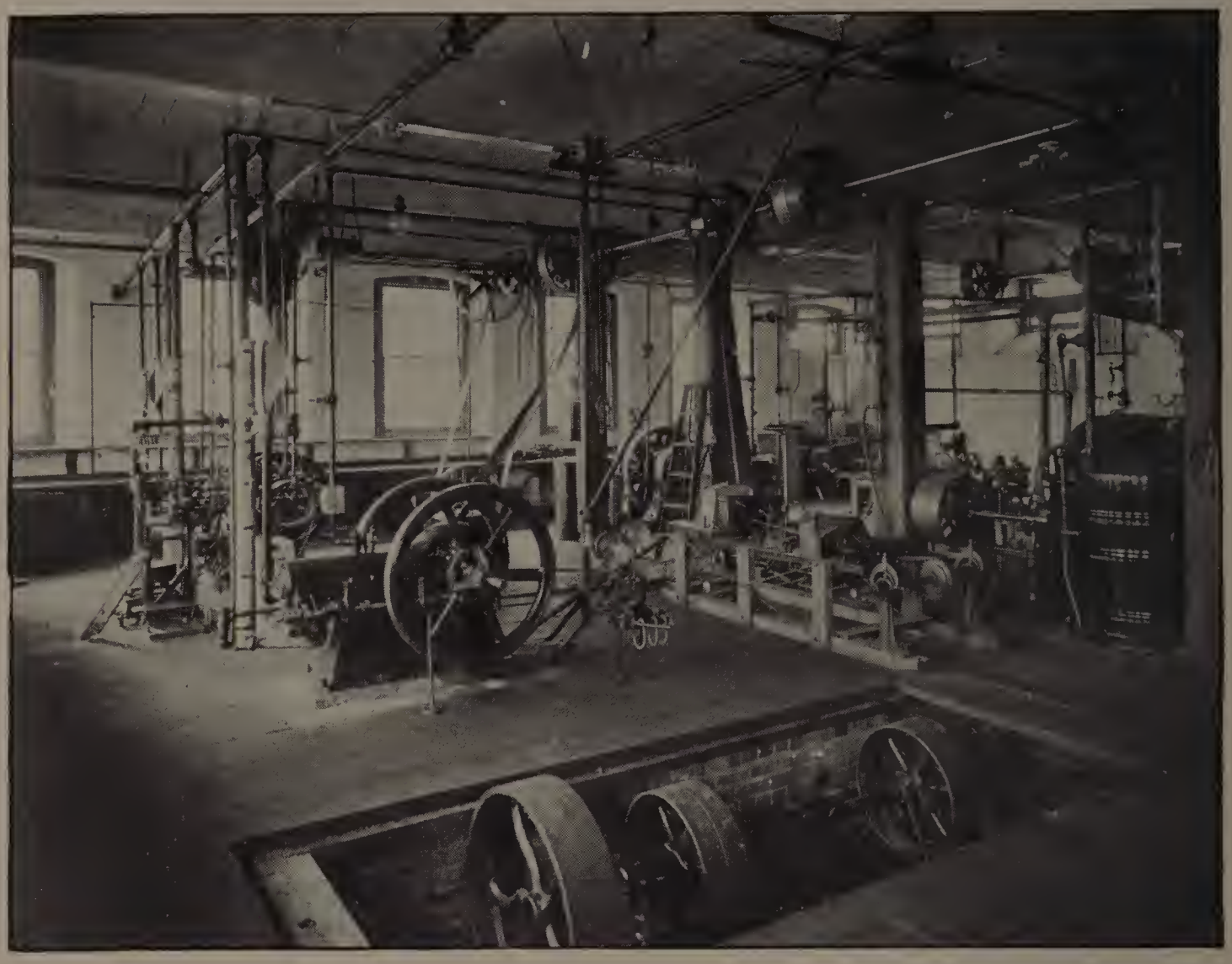
BELT TESTING MACHINE.



PATTERN SHOP.



MACHINE SHOP.



GAS ENGINE AND AUTOMOBILE TESTING PLANT.



FORGE SHOP.

Mechanical Engineering Society

We remember with a great deal of pleasure the Friday evenings spent before the curtain in the Engineering Building, when we have listened to wise and learned men of our land. And especially do we remember the doughnuts, cheese and cider which won our hearts to the society at the very first.

Unfortunately, engineers are not apt to be great orators, so we often slept; but still we feel that the great purpose of the society has been accomplished, and we have been brought face to face with men who have actually been at work in the field, and who, as a result, have been able to tell us of the problems that have come to them and may come to us in years ahead.

If we ever wished to be oratorical ourselves, it was when our turn came to give a lecture, before the usual throng, on our summer experiences and on the merits of our theses. A few of them will surely be worthy of note. There were Champney and Roberts, for instance, with their many styles of dams at Chaffin's made necessary by numerous accidents; "Happy," with his little heater erected in the lecture room and kept close at hand so that he might not wander into the realms of electrical engineering; "Dick," with his scheme for getting the "Coal Dust Twins" to do his work; and then Jeddy, with his Carnot-Joule power plant, which, by some, is thought to be the coming cycle of the ages, if it will work.

As we leave our society here on the Hill we are very grateful to those who have been our chosen leaders, and we especially appreciate the interest that Professor Bird has shown in the society, for to his efforts the success of the society is largely due.

Prof. French—"If you had a rectangular steel frame, how would you stiffen it?"

Boutelle—"Fill it up solid."

A New Golden Rule.—"We give a whole man a half a chance, and a half a man a whole chance."—*Bird.*

Fiske and Hoppy are assigned to work together in the cement lab.
Fiske (on approaching bulletin board and reading it), "Oh, H——."
Hopkins (a few minutes later does the same thing), "Oh, the d——."



Out of the chaos of a hundred and twenty-five undecided Freshmen some unknown power influenced the minds of twenty-nine individuals and massed them into a division known as the "Want-to-be-civils." Such a crowd of fellows had never before undertaken to sail that trip, according to the opinion of the profs, but all kept at it, probably with the idea of evading the grease of the shops or the smells of the laboratories.

Until we entered our Sophomore year we had, like all Freshmen, worked for two causes—always to trim the Sophomores and to pass "Descript." With these successfully carried out we entered again in September, with a spirit unknown before in any department on the Hill—that of keeping together and saving our brains by not too frequent outbursts of knowledge. To this day no one has ever broken that unwritten compact, either because he can't or doesn't dare to.

No one but a civil can ever have that feeling of satisfaction until he has joined the fold and been detailed, for the first time, to tape a line between two points, preferably on some main street. This was enjoyed by all, the very first of the second year, and with "Willie's" protecting hand we learned that to drop an instrument meant financial damage, and to ask too few questions in class meant an "E." When Christmas came around, we had learned all the fine points of a level and a transit, as well as how to make a "Civil Picture Book" without doing any unnecessary work.

At this stage in the course primary hearings were given to all those found guilty of scabbing, with the result that "Concrete-crazy Fiske" was put on a two weeks' probation, a verdict handed down by the Supreme Council—"Stock," Sargent, and Hay. About the first of January the instructor in railroads attempted to force into our minds the exact difference between a curve and a tangent, the memory of which to-day is

as faint as the memory of when "Bake" actually didn't have anything to say. When the finals came around in June, quite a few had decided (for them) that two years' training as a civil engineer was either enough or too much.

At summer practice, which followed directly after "exams," we acquired three bits of knowledge: that a course said to be twenty days of ten hours each can't be the same as twenty-three days of fourteen hours each; that to be an admired instrument-man far surpasses a "greasy mechanic" behind a slow-moving machine; and finally that if every curve must check within an eighth of an inch, hardly any instrument can have a clear conscience.

Through the summer many strange things happened to the division; some worked for anything "per," some "helped father" around the place, while one even attempted the chance of perfect happiness in the field of matrimony. At any rate, when the train-master called "all aboard" for Chaffin's, nineteen men and "Hoppy" started on the usual summer survey of a railroad line through the wilds of southern Holden. To the surprise of one man only, we were introduced to a new professor in railroad engineering, Prof. H. C. Ives, who within three minutes was knighted "Reddy," probably because he was so ready to help us pitch our tents. To enumerate the times enjoyed at Chaffin's, as well as the experience stored up in our brains, would take a volume in itself, but minute details can always be had if one should ask Carleton about his lame ankle or Hopkins about the walk from Holden in the dark. Every one regretted when the last stake of that three-mile railroad was pulled, and we realized that back to the Hill meant an atmosphere of least squares and mechanics. The year passed through very successfully, even though "H. C." had a few good chances at us in railroad economics and astronomy.

When we started our Senior summer practice, we were thrown for the first time in close contact with the "man behind," namely, Prof. French. In this practice of three weeks we were told a few bits of knowledge about precise instrument work, and when we started on our "summer jobs," it would seem as though nothing could feaze us from the construction of a trunk line to the "cussing" of a dissatisfied foreman.

September, 1907, brought together fifteen of the original twenty-nine, as well as two more, who had decided that the civil spirit was the kind to enjoy. Never were two men more welcomed than Brown and Dorman. We tackled bridges, trusses, girders, arches, live-load systems, wind pressures, webs, cements, bricks, stones, electric hoists, pure water, and no sleep. Yet with it all IIE let us all stay, probably because each one was as good as the next one.

What a year for the civils! In the cross-countries the crowd went out, if nothing more than to help "Fat" Rogers out of the muck in Peat Meadow. At football the Varsity was given a scare by the speed of such men as Sargent and Moore. In the class-room "Davy" began to shine as knowing a little more than the other sixteen in arches. In basketball every one paid his assessment, including "Hoppy." At track no one found any difficulty in trimming Rowell and Carleton. It was during this outburst of spirit that the civils, for the first and last time, met their equal and very reluctantly allowed the mechanics to lay on a thin coat of whitewash in the famous football game of 1907.

When it was fully realized what the condition of this college town after May 1st would be, it was deemed advisable to celebrate the parting of the famous seventeen by a banquet at Zaeder's. The event and the manner in which it was carried out will never be fully known to the inquisitive public, but a few general questions can be answered by "Jinks," who chaperoned the crowd.

To relate completely the many events of all the three years as civils would fill this Aftermath completely, so this sketch must serve as a brief to an unabridged history, yet to be published, of the "Seventeen Civils of 1908."





AT CHAFFIN'S.

Civil Engineering Society

About twelve years ago there was formed a general engineering society of students from all courses of study. The subjects of discussion were varied to suit the minds of chemical, civil, electrical, and mechanical engineers. This society held together for a year or more, but it is quite easy to understand how attendance at the meetings continued to decrease when one considers that a student's own profession would be the theme of a lecture only once or twice a year. Interest became so low after three or four years that the heads of the several departments decided that individual societies, composed of members of the separate courses, should take the place of the former general society.

It was in 1903 that a committee composed of civil engineering students, and Prof. French as chairman, drew up a constitution for the Civil Engineering Society of the Worcester Polytechnic Institute. The society has well carried out its purpose of interesting and encouraging the students in engineering subjects. It holds several meetings during the year, most of which are addressed by students. This year, however, the society has been exceptionally fortunate in securing as speakers alumni and others who have gained a high standing in their profession.

Active membership in the society is limited to members in the civil engineering department, but honorary members may be chosen from "persons of acknowledged eminence in some branch of engineering or the sciences related thereto."

The present officers of the society are: President, W. E. R. Ronian, '08; Vice-president, R. W. Burpee, '09; Secretary, C. A. G. Pease, '10; Treasurer, G. F. Martin, '10.



When we showed up on the Hill we were a rusty looking company. That didn't make any difference, however, for we soon became polished off by the steady grind. We took down the usual volumes of notes at Kinny's lectures, absorbing with keen interest the lectures dealing with high explosives and violent poisons, and learned that if you wanted to make one hundred pounds of c. p. sodium hydrate, you did it by adding fifty-seven and a half pounds of sodium to some distilled water. During this year we had the pleasure of telling Dannie that charcoal was used in small installations where a rather high heat is required, in short, for roasting peanuts. Under his benign leadership we calculated among other things that a quart of sulphuric acid weighed two hundred pounds.

At the beginning of the Sophomore year we launched out into qualitative analysis. Here we began to get acquainted with each other, the formation of the Union followed from the laws of chemical affinity, and we settled down to finding out what the samples were. Incidentally, it was found that water sealed up in glass and heated made a pretty good firecracker, and that fireworks could be indulged in after hours as long as the supplies of barium and strontium nitrates held out.

It was here, too, that the celebrated fire brigade had its origin, and on many occasions its timely response saved the laboratories from destruction. In the Sophomore year the chemists' division boasted of a magnificent quartette, whose moving strains relieved the heaviness of the laboratory atmosphere. In the same year we were initiated into the mysteries of quantitative work and wondered why they didn't furnish hoods good enough to remove the smoke in good shape. Then, too, we learned of the marvelous rejuvenating effects of glacial acetic acid, what Theophrastus Bombastus Parceleus did for chemistry (or was it medicine?), and many other interesting things.

The Junior year found us taking theoretical chemistry. This course is remembered for a number of equations, which promise to revolutionize



the science of mathematics. Many of us had already had considerable experience with "gas," but Dr. Kinnicutt gave us our first insight into its real value and how to use it to the best advantage. That year also introduced us to the intricacies of organic chemistry. It was surprising what a long memory organic chemistry required. In some cases it was fully six yards long. It seems doubtful if many lectures were followed with closer interest than that in which Dr. Jennings explained that whiskey was just alcohol and water, a little coloring matter, with perhaps a drop or two of creosote to make it Irish! After that it was only natural that the samples of wine for analysis should be regarded with more interest than that arising from mere ambition, but, on the opinion of the experts that it was a very poor grade, most of it was analyzed.

The Senior year is memorable mostly for the deep insight into physical chemistry which we gained and the stupendous cramming that was done for

the organic exam. We have had some of Thorpe read to us, and have been somewhat interested in the unique electrical engineering employed in connection with electro-chemical work. On the whole we feel that the years have been spent to good advantage, and while obtaining some of the information marked out by the catalogue, we have also gained experience and knowledge of far greater value.



Our First Attempt At Chemical Research.

Kinnie—"There is just as much difference between typhoid and diphtheria as there is between a horse and a cow; you can't get a horse from a cow, nor can you get typhoid from diphtheria bacteria."

Prof.—"Well, Hopkins, have you got over that nap you were having?"
Hopkins—"I was thinking."

Just a little sawed-off,
  So nice and cute and chubby,
He's quite the candy with the ladies;
  But who is this man? Why, of course, it's Stubby.



The Worcester Chemical Club

The Worcester Chemical Club was organized in the fall of 1904 by the instructors in chemistry at the Institute and at Clark College, with the object of bringing together the men about the city who were interested in chemistry. At the first meeting Dr. W. L. Jennings was elected president and Dr. B. S. Merigold secretary. Regular meetings were then held at the Institute every two weeks during the school year, and were well attended by instructors, technical men and students. The general plan of the meetings was the reading of papers from the chemical journals, and the reporting of any special work engaged in by the members. During the year the society published a leaflet, compiled by Dr. Jennings and Dr. Merigold, giving a list of "Periodicals Relating to Chemistry in the Libraries of Worcester." This was distributed among the members and proved very valuable to those having occasion to search for articles in the literature.

The general plan of the club has been maintained since its organization and occasionally it has been addressed by men from outside the city engaged in teaching chemistry or superintending chemical plants. Among them have been Professor Henry P. Talbot, Mass. Institute of Technology; Professor Norris of Simmons College; Professor Chas. D. Sanger of Harvard, and Mr. Dana D. Barnum of the Worcester Gas Light Company. In the fall of 1907 a new form of organization was effected; a membership fee of 50 cents per year was adopted for voting members, all other privileges being extended to anyone whether members or not. Dr. W. L. Jennings was president from 1904-1906; Dr. B. S. Merigold, 1906-1907, and Dr. Frederic Bonnet, Jr., 1907-1908. Under the leadership of these men the club has prospered, and at the present time has a membership of fifty. The meetings this season have been well attended and the prospects of a still larger membership next year are very favorable.

"Sufferance is the badge of all our tribe."—*Civils.*

"He stuffs our ears with declamation."—*Packard.*

"The moon looked down with all its stars."—On the civils star-gazing.

"At school I knew him—a sharp-witted youth, grave, thoughtful, and reserved among his mates, turning the hours of sport and food to labor, starving his body to inform his mind."—*Goddard.*



General Science Division

Out of a hundred odd men who finished the Freshman year, only three decided to take the general science course. The reason for this is hard to discover, as this is the only course at Tech in which a man can take all the studies he wants to.

These three had various aims: John to go later into photo-engraving work, Deacon to study electro-chemistry, at least that was his intention, and Bob to study physics. They did not limit themselves to these activities, however. John became interested in automobiles, and never tired of telling you about "my little gasoline engine"; Deacon's enthusiasm over chemistry never flagged, while Bob was in danger of becoming a second Duff until checked by the press of Aftermath work.
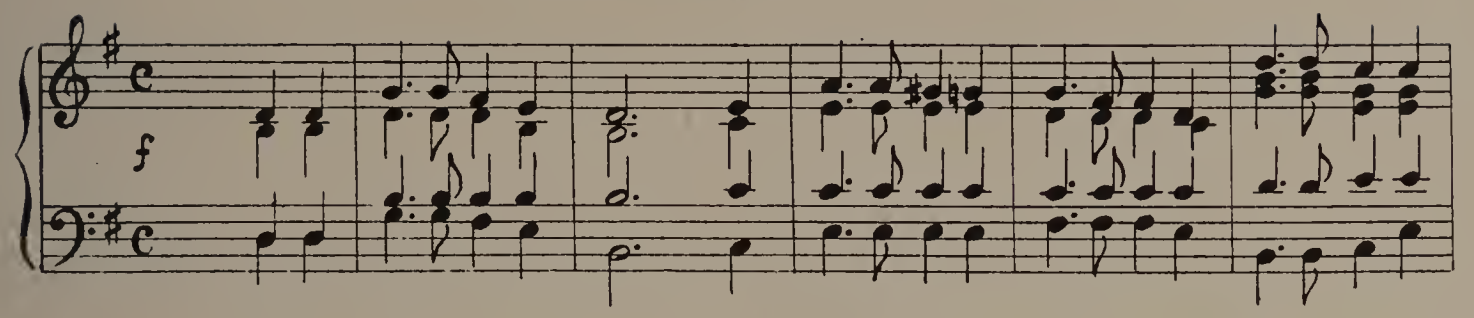
The general science division did not take much active interest in athletics. It is rather lamentable, as they had good material, and might have organized a football team which would easily have beaten the civils and even, perhaps, the mechanics. With a baseball team, too, they might have held their own against any other division in the Institute. But these things stand now in the class history as only so many wasted opportunities.

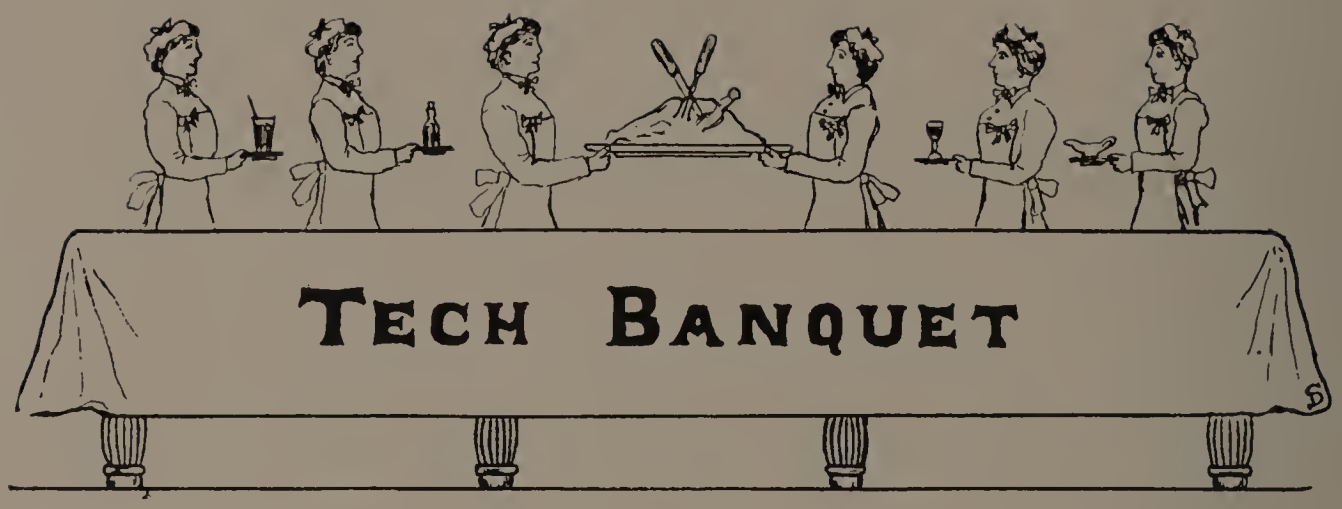
All have taken chemistry, and have advanced to the degree where they are competent to prepare vile odors in their most up-to-date and scientific manner. Most of the division have also taken electric laboratory as an elective, and all those who did so were delighted with the work in general, writing reports in particular, and most especially that of the experiment in which one takes 874,623 volt-meter readings.

They were all good-natured, pleasant fellows, even though the average standing of their division was very high, and we wish them success after they graduate and begin their careers, scattered through many lands.

— OLD TECH —

MUSIC AND WORDS BY ROBERT H. GODDARD. '08.





Annual Tech Banquet

Bay State House, Worcester, Mass.

Toasts

Toastmaster, Prof. G. H. Haynes.

Our Course,	President E. A. Engler.
Up in the Air,	Prof. G. R. Olshausen.
The Class of 1908,	R. H. Goddard.
The Class of 1911,	H. P. Conklin.
Athletics,	Prof. Z. W. Coombs.
Reminiscences of the Class of 1908,	Dr. F. Bonnet.
The Class of 1910,	K. E. Herrick.
Why We Are Here,	Prof. A. W. French.
The Class of 1909,	J. W. Howe.
Experimental Mechanics,	Prof. C. M. Allen.

Music

Tech Orchestra.

Committee

Morris H. Neal, 1908.
Arden B. Holcomb, 1908.
Joseph Harris, 1908.
Philip J. Rowell, 1908.
Harvey C. Irving, 1909.
Karl E. Herrick, 1910.
Edwin D. Beach, 1911.

	Best Professor.	Most Difficult to Recite to.	Hardest to Bluff.	Most Rattling.	Most Polished.	Most Popular.	Most Sarcastic.	Kindest.	Most Broad-minded.	Most Eccentric.	Handsomest.	Neatest.	Pleasantest.	Brightest.
Engler,														3
Sinclair,	13		4		1	20*		18*			4		3	
Kinnicutt,	4			1	2	6		8	1	31*	2	1	2	5
Conant,	1	12	8	9	9			6	1		1	9	5	1
Haynes,	1	4			4	2	6		13*	1		2	3	6*
Jennings,		2	3		3		4			1	2	2		2
Coombs,	1				1	10	1	1	8	1	5		6	
Smith, A. L.		1		1			15			1		2		1
French,	12		20*				2	1	7		1		1	6*
Duff,		1	4						1	1				4
Bird,	10			7			1	2	2	1			1	1
Smith, H. B.	3		1		19*				5		2	13*	1	
Allen,		2		1	1	7		1	2	1	14*	1	7	
Rockwood,		1	3	8	3		5		1		3	4		3
Phelon,			1	4				1	1	1			4	1
Ewell,		17*		3	2			1	1	3	2			
Richey,	2		2		1							1		
Ives,	1	3								1	1		1	
Marshall,											2			
Olshausen,		1		1					2					
Sweetser,				2				2	1	6	1			1
O'Regan,	2	7	13	32*	4	2	1	1	1			3		1
Jernberg,	3					11		13	1				3	
Ashworth,								3						
Fairfield,					1			3		5		1	3	
Gallup,		5	7	2			35*			1	2			6*
Calhane,		1							1	1				
Fish,	21*		1		1	13		8	6	1		2	15*	2
Chase,							1	1					1	
Bonnet,	3	1	5		9	1	1		11	1			1	4
Knight,		3	1	1						1			1	
Williams,		2	1	2		1						2	2	3
Tilden,	1					1		1		1	6		1	1
Works,							1							
Brown,														
Buzzell,								1	1	1			3	
Howe,					7				1		4	11		
Harrington,				1					1		6	1		
McConnell,										1	1			
Davis,							1							
Childs,										1				1
Stearns,								1				3	1	
Adams, F. T.										1	3			
Adams, E. A.											1			
Frary,					3	1		1			1	2	2	
Martin,			1											
French,		1			4					3	2			
Hedin,											1			

	Handsomest.	Thinks He is.	Class Beauty.	Class Doll.	Grind.	Dude.	Brightest.	Most Popular.	Most Eccentric.	Most Versatile.	Nerviest.	Greatest Winner.	Thinks He is.	Grouchiest.	Best Dressed.	Thinks He is.	Windiest.	Best Bluffer.	Best Natured.	Hardest to Rattle.	Biggest Sport.	Heaviest Smoker.
Ammidown,			2				1		3										1	1		
Andrews,		1								1	2		1	1		2		4				
Baker,		1	1							1	1	2		1		1	10	4	2	1		
Baldwin,		1		1	1	1			1	1			11	1			1	1		1	1	1
Barnes,				1																	1	
Boutelle,	1		1		1	2	1			6							1	2	2			
Carleton,										1	2	1	4									
Chase,																						
Champney,		1			1						1		8*	5*		4					4*	
Chesley,			3	3					1				1									8
Clarkson,									3				2	1								
Cole,							4			1					1		1	1	2	9*		
Cook,			1		1						1											1
Coolidge,		1							1	1	5		1	3			9	12*		2		
Cooper,	2		1					1		2		1							5			
Copeland,										1									4			
Cottrell,								17	1	1		8	1						1	1		1
Davenport,					1																1	
Davis,							1				1	1										
Dawson,				1																		
Denny,	1	1	2	1	1	6									25*	1						
Ellsworth,		3		1		1	1							1								
Field,	1	4				6									4	13*						
Fiske,											8*			1			1	1				
Foster,																1					1	
Goddard,			2		1		10*			5										1		
Harris,											2											
Harvey,									3										3	5		
Hanley,												1		1								
Hitchcock,								3			1	2										
Holcomb,		6				1	4			1			1		1	1	1			1	2	1
Hopkins,			5			3			22*				1		1				1		2	
Judge,																			1			
Kendall,			1				2	18*		2		7							1			
Lamb,			1																		1	
Langley,						1					1			1		1			1	3		3
Lathrop,	3	1	6*			1						1	2		5	2		11			3	
Law,														53								1
Lawley,											1	2		5*			2	1	1	1	2	
Lewis,														2		1						

Most Likely to Succeed.	Laziest.	Most Energetic.	Most Admired.	Greatest Fusser.	Greatest Social Light.	Meekest.	Best Athlete.	Greatest Jollier.	Wittiest.	Most Regi.	Most Original.	Done Most for W. P. I.	Most Melancholy.	Noisiest.	Most Benefitted by W. P. I.	Least Benefitted by W. P. I.	Most Sarcastic.	Most Broad-minded.	Most Narrow-minded.	Best Civil Engineer.	Best Chemical Engineer.	Best Electrical Engineer	Best Mechanical Engineer.	Class Mascot.
1	7	2				7						3	5		2	8*			2			1		3
		1						3									15*	1					3	
1		2	1			1							2	3	2					2				
		1														3								1
			1												1									
				1	5			9*	13*	1	1													
												2	2				1							
1		1		1						11									4*					
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3															1								20*	
						19*		6					6		1									
1						1		1		1			1		1		6		3			1		
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						6									1		1			2				
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1		1			2							1												
		6*				1									1	1	1		1					
2		1			1										2							1		
		2	2									5			1			5						
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	1	1						1	1		9*							2					3	
			1	1	1					1														
			1				4					1	1		1							1		
				17*				1														3		
		2			1					1	5		2		6*	1	1		1	2				
								2	3															
9*		6*	8									3		2				10*					1	
						1									1									
	1	1		1	1			3	1					4					1					
	7			2				1															1	
			1			1												1						
1							12					2					1						1	
3					1				1															

	Handsomest.	Thinks He is.	Class Beauty.	Class Doll.	Grind.	Dude.	Brightest.	Most Popular.	Most Eccentric.	Most Versatile.	Nerviest.	Greatest Winner.	Thinks He is.	Grouchiest.	Best Dressed.	Thinks He is.	Windiest.	Best Bluffer.	Best Natured.	Hardest to Rattle.	Biggest Sport.	Heaviest Smoker.
Lowe,	4	5	1			1				5		4	7			2	11*	1			2	
Moore,				1	1					1	1		1	1								
Neal,																					1	
Newman,									1				1	1			1					
Nims,					6													1				1
Nourse,	3	5	2	29*	1	8*									2						1	
Packard,								1		1	1								1	3		
Parkhurst,																						
Regan,						2	1				1		1			1		1				
Roberts,		8*		1		2					1				1	3	1					
Rogers,			1		2						1	1	1	1			1	1	2		1	
Ronian,	2														1		1				1	4
Rowell,	23*		2					1	1	2		2			1	1						
Ryan,					2				1													
Sargent,								3		3		1							1			
Sawin,								1	1													
Sawtell,			1								2			2			1					
Sellars,		1		1						1	1			1				1	1		4*	1
Simonds,	3									1		1							6*			
Smith, A.					1						3										1	
Smith, R.														1								
Smith, W. D.				1							1			2	1	2		1			1	18*
Spencer,			1			1					1	1										
Stinchfield,			1		1		5															1
Stockbridge,																				1	2	
Strachan,									1													4
Trott,																	2					
Truesdell,		1	1	2																		
Williams,				1			3												6*	3*		
Wood, F.E.																						
Wood, W.									1	1	4						2					
Woodbury,					16*				2												2	1
Woodcock,																						
Yamada,																			4		3	
Darrah,	1		4	1	8		6		1	1										3		
Anderson,			1																			
Brown,														1								2
Dorman,														3								1
Bingham,							1		1		1							1				
Ballard,																						
Witham,																						

Most Likely to Succeed.	Laziest.	Most Energetic.	Most Admired.	Greatest Fusser.	Greatest Social Light.	Meekest.	Best Athlete.	Greatest Jollier.	Wittiest.	Most Regi.	Most Original.	Done Most for W. P. I.	Most Melancholy.	Noisiest.	Most Benefitted by W. P. I.	Least Benefitted by W. P. I.	Most Sarcastic.	Most Broad-minded.	Most Narrow-minded.	Best Civil Engineer.	Best Chemical Engineer.	Best Electrical Engineer.	Best Mechanical Engineer.	Class Mascot.
			1		4						1			6	1		5		1					
																1			2					
	6		1	1	12*				1		1				1									
	1	1												1		3	1		3					2
				1	1					32*						1						1		
	1													1		2								1
			1				1							1			1	1						
									6		1								1					
				2	1																		1	
4		3		7	1						4				1		1			3				
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				6	2						3							2	1	4				
		1							3		2										3			
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	6					4							15*						4*				2	
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3			1								4				2			1						
1	10*																							
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				1																				
		1							1				1			1		1						






KNOCKS

Of 1908

Demure and sage, bereft of mirth,
And snugly clad in knowledge wise,
At last, in under such a guise,
Ye seniors passed for sterling worth.

But soon will indiscretion come
When face to face with standards grim,
Ye pause, and being fleet of lower limb
The field too soon will rid of some.

As nature hath endowed her few,
With traits which she herself despises,
We can't but smile, to see disguises
Attempted, to her plans undo.

So we forgive and overlook
That which is innate, unaffected,
But think not ye be undetected
In practicing your hook and crook.

"Of two evils the less is always to be chosen."—Hoppy or Fiske.

"He had a face like a benediction."—Stinchfield.

"As merry as the day is long."—Holcomb.

"Sits the wind in that corner."—Baker.

"A lion among ladies is a most dreadful thing."—Rowell.

"I am Sir Oracle,
And when I ope my lips let no dog bark."—Fiske.

"And still they gazed
And still there wonder grew
That one small head could carry all he knew."—Darrah.

"This is the long and the short of it."—Prof. French and Stubby Williams.

"It is a great plague to be too handsome a man."—Denny.

"I start as from some dreadful dream."—Sargent called on to recite.

"Sometimes he shaves."—Ronian.

"All nature wears one universal grin."—Ellsworth.

"Too civil by half."—Boutelle.

"The cattle are grazing
Their heads never raising,
There are forty feeding like one."—Newton Hall.

"A babe in the house is a well-spring of pleasure."—Barnes.

"Begone, dull care, I prithee be gone from me,
Begone, dull care, thou and I shall never agree."—Langley.

"I will kill thee in a hundred and fifty different ways."—Prof. French.

"Fresh as a bridegroom and his chin newly reaped."—Ronian.

"He trudged along, unknowing, what he sought,
And whistled as he went for want of thought."—Moore.

"Then he will talk, good gods, how he will talk."—Baker.

"For you and I are past our dancing days."—Hopkins and Davenport.

"Now by the two-headed Janus, Nature hath formed strange fellows in her time."—Darrah.

"The Tempest."—Ives recitation.

"A Midsummer Night's Dream."—That Sawin will ever be an engineer.

"Methought I heard a voice cry, 'Sleep no more!' "—Only Ives giving out a least squares recitation.

"The quality of mercy is not strained."—How times have changed since Shakespeare's day!

"As you like it."—The General Science course.

"Much Ado About Nothing."—Physics Lab.





"Comedy of Errors."—Least squares.

"The patch is kind enough, but a huge feeder."—Fat Rogers.

"Well, the most courageous fiend bids me pack."—Ticknor.

"Oh, Hell, what have we here?"—Only a Physics Lab. report handed back.

"Absence makes the heart grow fonder."—Of Tech, Swift says not.

"Absent in body, but present in spirit."—Nourse in English.

"What a beard thou hast got."—Cole.

"A book's a book, although there is nothing in it."—Free-hand Lettering.

"Oh, what a goodly outside falsehood hath!"—A crib.

"On argument alone my faith is built."—Baker.

"What a falling-off there was."—After mid-years.

"By my troth, this is free and easy indeed."—The Mechanics Course.

"Full of sound and fury signifying nothing."—Prof. F————.

"All that glitters is not gold," said Bob Goddard as he got his marks.

"When Greek meets Greek."—Bill Baker and Dr. Ewell.

"How use doth breed a habit in a man."—Newton Hall grub.

"A mighty shooter with his mouth."—Lowe.

"His ways are ways of pleasantness and all his paths are peace."—Ammidown.

"Great heavens, get back into your cradle!"—B-l-w-n.

"Humpty Dumpty."—Fat Rogers.

"The conscious water saw its God and blushed."—Hopkins.

"It is meet and in me to see a fool."—Smithy.

"Honors don't always change the man."—Dutch.

"To Hoss, to Hoss, urge doubts to them that fear."—Hoss Harrington.

"He that hath a wife and children wants not business."—Our married men.

"He that hath good wits hath much to answer for."—Bob Goddard.

" 'Tis folly to be wise."—Davenport.

"There were some advantages in the quarterly payments that were in force some time ago at the Institute, then the payments were visible to the naked eye."—Prof. Haynes.

"In the next few years there will be many of you who will wish to go into partnership with someone else." (Laughter.) "In fact, some of you have already decided that."—Prof. Haynes.

"I am the very pink of courtesy."—Denny.

"Oh, 'tis a foul thing when a cur cannot keep himself in all companies."—Kelpie.

"Thinking on the days that are no more."—The days of Descript.

"A deed without a name."—The tragedy of the elephant.

"To scorn delight, and live laborious days."—Four years at Tech.

"What, can the devil speak true?"—Champney reports all done in calc.

"The devil can cite Scripture for his purpose."—So can Hoppy in his debate.

"He that dies pays all his debts." But pay your athletic assessment before you die.—Woodbury.

"It will discourse most excellent music."—Duff's arc organ.

"It is a good divine that follows his own instructions."—Stubby.



$$\int_{-1}^{+1} \cos \frac{m\pi x}{l} \sum_{o}^{\infty} A_n \cos \frac{n\pi x}{l}\, dx$$

Nicht Wahr?



ELECTRICAL ENGINEERING.

"He wanted a peg to hang his thoughts on."—Fiske.

"Some folks are drunk and yet do not know it."—Strachan.

"I rise with the lark."—Summer practice.

"'Tis as easy as lying."—Regan.

"Almost dwindled to an echo."—Tilden.

"Likeness in thy work is eloquent."—Descript plates.

"Oh, how full of briers is this working day world."—An eight o'clock.

"Work, work, work,
Till the brain begins to swim,
Work, work, work,
Till the eyes are heavy and dim," etc.—Tech.

"For my voice, I have lost it with holloaing and singing of anthems."
—Nims.

"So few and rare between."—Tech functions.

"And he by no uncommon lot,
Was famed for virtues he had not."—Kurtz.

"As mad as the vexed sea."—Coombs.

"There's a good time coming."—Commencement.

"Time elaborately thrown away."—General science.

A Recitation in Political Science

Prof. Haynes—"What are the qualifications and the powers of the President of France?" (Looking over the class and seeing Smith busily talking to Simonds)—"Mr. Smith."

Smith—"Er— — — Oh, he can't be a woman, and he has the right to veto, and — — — er — — —"

Prof. Haynes—"That will do. The same question, Mr. Neal."

Neal—"Why, — er — why he has to be a citizen and he can't veto anything, and — — — "

Prof. Haynes—"That's better. Well, now returning from Germany and women, what are the powers of the French Executive? Mr. Smith."

Smith (still conversing with Simonds)—"Well, as I said, he can't be a woman, and — — " (Evidences of amusement on the part of Prof. Haynes and class. Smith seems puzzled.)

Prof. Haynes—"Well, we are trying to find out about France at present, Mr. Smith."

Smith (sees light)—"Oh, yes! I was thinking about Germany. Well, he doesn't have much power anyway."

Prof. Haynes then tries to explain, while he counts the window panes, runs his tongue around in his mouth to see if all his teeth are there, chews his lip, and is not distinctly heard by anyone.

Prof. Haynes—"Well, leaving the executive, let us turn to the United States Senate. How are Senators elected? Mr. Langley."

Langley (rises, stands on one leg and then on the other, looks around the room)—"Why, why, they are elected by popular vote."

Prof. Haynes—"And you come from Rhode Island, Mr. Langley! I *am* surprised."

"Never show disloyalty to the Institute. If you meet a problem in mechanics that you have never heard of, say that you were taught that at the Institute, but that you will have to refresh your memory on it."—*Bird.*

Hopkins in debate on "Should the Navy be Increased?"—"Why," he says, "the Pacific coast is not protected, and the first thing that we know the Japs will walk over here in twenty-four hours and capture the whole coast!"

Don't you feel happy when you get your shop deposit back that you don't have to tell your father about? Clear gain.

Limericks

There was a young man named Moore,
To whom geodesy seemed a great bore;
He studied with might
Both by day and by night,
And when he got screwed he was sore.

There was a young chemist named Nourse,
To whom beer was an abominable curse,
But when whiskey came his way,
He got frisky, they say,
And had to go home in a hearse.

There was a great fusser named Boutelle,
Whom Mary thought exceedingly swell,
But one day he gave birth
To a big bunch of mirth,
When he slipped and exclaimed, "Oh ———"

Bill Sellars is truly quite fat,
There is no dispute about that,
But he could sing like a lark,
And walk a chalk mark,
When he wasn't under the mat.

There was a young man named Rogers,
Beloved by all civil codgers,
For he could eat up most beans,
And wear out most jeans
Of all of the Newton Hall lodgers.

There was a young man named Lowe,
Who could talk as an east wind can blow,
But for all his hot air,
He was all on the square—
About that he could certainly crow.

There was a young man named Brown,
Who wished his Tech troubles to drown;
So he went down to Ben's
And spent a few tens,
And next morning he had a swelled crown.

There was a young man named Lamb,
Who once was heard to say "Damn!
Of all the big messes,
The worst is this stresses,
For on it I do nothing but cram."

There was a young ball-tosser named Cole,
In whose bat there was always a hole,
For when a ball came his way,
He was always heard to say,
"I couldn't hit that with a pole."

There was a young man named O'Neil,
Who in Dutch could give a great spiel,
But in mechanics got screwed,
And from kinematics he was tabooed,
For he couldn't tell a cam from a wheel.

Bob Goddard they say is a shark,
And that he always gets A for a mark;
All this we'll allow,
But I'll tell you right now,
That he's always in for a lark.

There was a young man named Trott,
Who went down to Wellesley a lot,
But he tried to butt-in at a swell social din,
And they carried him home on a cot.



THE CHEMICAL BALLET

There was a young man from Cape Cod,
Who had visions of a stadia rod;
If he doesn't soon drop it,
His friends will soon stop it
By putting him under the sod.

And down he went to the U. of Penn.
To teach them how to level,
And then he came back here again
To give us all the d———.

Willie was hard on us, we know,
We thought he was the limit,
But when compared to Reddy Ives,
He surely isn't in it.

By the side of the whirling saws
Stands Chickadee with his massive jaws,
Who keeps them a going from morn till night,
A-chewing and chewing at all that's in sight.

"Now, poys, ve vill show you how to-day
To veld some iron and make it stay;
First a velding to get,
And den to strike already yet,
And you have a good yob now, you bet."

Among all the noisy gears and wheels,
And all the grit and grinding steels,
Goes "we" in such a terrific haste,
A-wiping his hands on a piece of waste.

In days of old there was a prof
Whose hair was nearly all but off,
Who said, with a look of remorse,
"A horse chestnut is not a chestnut horse."

"Where did you get it?" said Johnnie smiling;
"From the above," said Ammidown lying;
"It looks to me, if I did not know,"
Said Johnnie, "that it came up from below."

Overheard at Newton Hall

"Steak and boiled eggs."

"Oh Green, telephone!!!"

"Oh, Stevens!!"

"Glass of water, Felix." (Felix) "Goin' to get right up."

"No, sir, this town'll be all the worse from no-license. Now look at Shelburne Falls—"

"And Bridgeport too; the guys what live there know what a dive is. Why, I've been in every saloon in town and never drank a drop."

"Laff, ye fule, and show yer ignerance."

"Shut the door!!!!!"

"Cheese it, fellows, here comes Coombs."

"Two meals on Sundays."

"For gad's sakes, get out o' here and shut up."

"All girls look alike to Pat."

Intake Crib—the parlors from 8 p.m. to 4 a.m.

"Baby Farm next year."

"Codfish aristocrats."

Smoke talk on "Women" by Reddy.

"I was with Cæsar shooting craps."

"Telephone for Russell."

"Hic—I'm your friend, hic—I'm your friend."

"Steak 19 times a week."

Some fellows call him "B. L.,"
The profs all call him "Moore,"
"Curly" fits him pretty well,
But "Biddy" makes him sore.

What is Entropy?

It is two minutes past the hour and G. I. has not yet arrived on the scene, so the mechanics are having their usual "rough-house." Suddenly G. I. rushes in, just having arrived from New York, and smilingly says to the class, "Shut up and sit down."

The worst of the "rough-housers" subside, but Smith breaks his chair and sits on the floor, due to the fact that energy equals $\frac{1}{2}M\ V^2$. G. I. removes his coat and asks:

"Is everybody here? Who is that man who usually sits beside you; let me see, what is your name? Oh, I mean the last man in the back row. Yes, you."

Last man in back row—"Smith."

G. I.—"Smith? Oh, yes, Smith. (To himself "Smith, Smith, Smith.") "Well, Mr. Smith, who is the man that usually sits beside you?"

Smith—"No one."

G. I.—"I was probably thinking of the mechanics. Oh, is this the Mechanics Division? I thought it was Electric Division. Well, Mr. —, eh, Mr. Smith, you may go to the board and draw the Temperature-Entropy Diagram of the Rankine Cycle."

Smith draws some lines and looks around at G. I. inquiringly.

G. I.—"Well, why do you use those points?"

Smith—"As far as I am concerned I should never use this diagram."

G. I.—"Well, I don't know as I should. However, Ripper uses it. What do those lines represent?"

Smith—"This is an isothermal, and this is an adiabatic, and—"

G. I.—"Why is the adiabatic a straight line?"

Smith—"Because I don't see any reason why it should be crooked."

G. I.—"Well, sometimes it is not just clear to me."

Voice from rear—"It doesn't say anything about it in the book."

G. I.—"Of course, there are lots of people who don't know what it says in the book. Let us see what Ripper says." Turns to Ripper, hunts awhile, and then asks the class, "Where is it in Ripper?"

Chorus of various replies.

G. I.—"Oh, yes, Ripper says (reads several paragraphs and then stops). You see that information, times the power to think, equals the results. Do you see the point, Mr. ———, Mr., oh, you in the end seat in the second row?"

Aforesaid end-man—"Yes, sir."

G. I.—"Is there any one *else* who doesn't see the point? Are there any questions anyone would like to ask?"

Chesley—"Well, now I don't see how Ripper can say what he does on page —."

G. I.—"Well, there are several mistakes in Ripper and this may be one of them. (Turns to Ripper and reads the paragraph out loud to the class.) That sounds all right."

Chesley—"Yes, but I don't see what right he has to say that."

G. I.—"Let us see. Ripper says (reads the same paragraph to the class again). Well, I think that is a mistake. (Bell rings.) Well, you can think it over and we will talk about it to-morrow. Now for to-morrow we will take——, what was the lesson for to-day? (Chorus of replies, all different.) Well, we haven't touched that to-day, so you can take the same lesson for to-morrow. That is all."

Davy—"What have you to say about the two-cycle engine, Lathrop?"

Lolly—"What do you want to know about it?"

Danny to a Freshman, after looking around the exam. room and seeing all the seats occupied—"Er-r-r (with a majestic wave of his arm) just take a seat anywhere."

A. L.—"What's the trouble back there, Lewis? You look as though you were thinking."
A. L.—"What do you base your guess on?"

Would it be too much of a Fish story to say that some of our instructors have a weakness for row A at the Old Park Theatre?

Strachan—"Electricity is that which is supposed to produce certain results."

A blacksmith, but the whitest man on the "Hill"—John Jernberg.

Prof. Rockwood—"Ripper says that isn't true; now why do we assume it is true?"
Harvey—"That's the way we always assumed in physics."

Most Tech fellows know but little Latin, but occasionally an exam. revives a few verbs such as:

Examini, flunkerie, suspendi, expulsum,
Cram, exam, flunk, trunk,
Grind, ground, grounder, grounded,
Flunk, flunkerie, faculti, fireus.

A. L. (reading in machine design)—"A fresh crop of fools in designing is born every year—and that's true," looking around the class.

Charlie Allen (teaching (?) hydraulics)—"That sounds reasonable! Any other ideas? I'll write down anything you say——. Well, think this over till next time."

Cole in mechanics—"Substituting then $\frac{1}{2}=\frac{3}{4}$. Q. E. D."

Prof. Bird—"All right, any questions?"

A. L. (in kinematics)—"You men are nothing but a bunch of parasites; one man does the work and the rest of you hang around his drawing-board like leeches, sucking in all the information you can get out of him."

"The girl at Oliver's will make dates with the class as soon as possible." Fat Rogers reports on the class photos.

George I.—"Don't you men read engineering papers regularly?"

Class in chorus—"No! We don't have time."

George I. (smiling blandly)—"Then take some of that time that you don't spend on Thermo."

Lewis—"We use that time for sleep."

"I am right."—Champney.

A. L.—"Why is that statement true, Chesley?"

Chesley—"I don't believe it is true."

A. L.—"Don't believe what is true?"

Chesley (rubbing his eyes)—"Why—I don't know — — er — — what was the question?"



~"A HERALD OF SPRING"~

"I was just going to say that I was thinking that" — — etc. (Lowe's explanation of any problem).

A. L.—"Name three kinds of animal oils used as lubrication, Newman."

Dick—"Goose oil, hen's oil and skunk oil."

George I.—"Reversibility is the criterion of perfection. Isn't that so, Mr. Lathrop?"

Lolly—"I wouldn't be surprised; that might happen."

J. K. (from office in middle of p. m.)—"Good morning, Doctor, is Mr. Baker in class?"

Johnnie Sin²—"No, we haven't a Baker, but we have a Cook."

Kinnie—"To save the trouble of looking at my watch, I use this three-minute hour-glass."

Prof. Sinclair—"Write the answer to that on a piece of paper, put your name on it and lay it on my table."

Kinnie—"Regan, how many cubic feet are there in an acre?"

"I don't cook my results."—Kinnie.

Dr. Sinclair—"That's just as plain as the nose on your face."

Chesley—"I don't see it."

Kinnie (the expert mathematician)—"8+8+5=26, and we make up the proportion, twenty-sixth is to twelve as point, ort, ort, ort, 5. is to x."

"That answer is about as good as a pair of trousers with one leg."—Johnnie.

George I.—"A man has got to come up here to Tech and study Thermo six months, with the fear of getting a condition at the end, before he can discuss a Thermodynamics problem intelligently."

"The dryness of this steam is wet."—Instructor Adams.

W. D. Smith (in prepared (?) French translation for Works)—"Prenez une chaise!"—"Take a cheese!" Then followed the event of historical importance, in which Works enjoyed only his own company.

Calhane (true to life)—"The fare to Boston is about $1 and from there to Wilmington is approximately $.50, which makes it about $2."

Prof. French (on hearing of the largest Freshman class in the history of the Institute)—"We will have a little house-cleaning later on."

"I don't care and I don't give a——! No, I don't mean that."—Davy.

Chemists, Notice!

Last one on record: Bobby Sweetser was seen to smile Jan. 13, 1906, at 10:23 a. m. The next facial relaxation is not expected to take place before 1913.

"Do you mean the kind of a load that you would get on a roof garden?" (A. L. figuring structural stresses.)

George I.—"What is your name?"

Lowe (answering previous question)—"Calorie in French and B. T. U. in English."

The Freshmen report that at last Zelotes has almost succeeded in killing that bear which he continually met near the ice house at North Pond, on his annual trip to Mt. Wachusett.

The History of Professor Allen's Photograph

The picture of Professor Allen in the Faculty series was selected after many hours of careful deliberation by a process of elimination from among the many which were so kindly offered by him. A picture taken when he graduated from Tech, or possibly from prep school, was rejected on the grounds that it might be taken for the likeness of one of the students inserted in the Faculty series by mistake. Some detective work brought out a likeness of a man labeled C. M. Allen, but a hirsute adornment on the upper lip was a fatal disguise, so this was not used.

An appeal was then made to Charlie in person. A photograph of President Roosevelt taking a fence on horseback was the best he could offer at first, and when this was not found to be suitable, he asked how a picture of Mrs. Allen would do, as she had just had some taken. This was thought to be a good suggestion, but upon reconsideration Charlie thought that it might not be just proper, so that finally he gave us a reluctant promise to have his own picture taken especially for the Aftermath.

A few days later he reconsidered again and canceled his promise, but gave us the most excellent likeness, which is given here in the Faculty series. He told us that it was taken at Niagara Falls by a cousin (feminine gender) of his, but we suspect it was taken at Elm Park. His face was slightly dirty, due to the heat and the fact that he had wiped the moisture from his face with his hand. This did not add to the beauty of the portrait, but taking everything into consideration, we thought that we were very fortunate to get this, and we gladly inserted it in the Faculty series. But—

Be it Resolved:—That Mrs. Allen be requested to prevail upon the Professor of Experimental Engineering to have a new portrait made immediately after the publication of this Aftermath, and—

Be it further Resolved:—That one copy be preserved for use in the Aftermath of 1909.

A rule of the '08 mechanics—"The principle of least work."

Packard in magnetic circuits—"Who is this Ibid referred to in the foot-notes who wrote so many books?"

See Nims or Hitchcock regarding Westinghouse, Type K, Gravity Destroyers.

Jinny—"Mr. Williams, what is the term of office of the mayor of a German city?"

Shorty—In some of the smaller cities it is for life, but in some of the larger ones it is several years longer."

Dr. Olshausen—"I will now raise L to the nth power."



Professor Bird trying to illustrate a problem—"If one man can see ten miles, how far can two men see?"

Chace—"Twenty miles."

Packard in Thermo—"James Watt discovered the steam engine."

Rocky—"Well, where did he find it?"

"There was a young man named Bingham,
Who said to himself, I can sting 'em.
It worked very well, till he tackled A. L.
And then —— —— —— —— silence."

Hawley in Freshman Algebra—"My result showed the probability to be 1.5, a dead certainty and a little more."

Mr. Fish—"An empirical formula is something like an historical novel in that it is based on fact."

Heard in Electrical Design—"This generator is over-confounded 10 per cent."

Prof. Bird in Materials—"When the iron is in the solid state, there is no tendency for the core to float."

Jinny in Poly. Sci—"Mr. Truesdell, I see that the 'sports of childhood satisfy the child.'"

"Who paid Hopkins' poll tax?"

"Pass the papers this way, NOW."—Jinny.

"This is delightfully vague."—Jinny.

"Oh, but the men are not thinking."—Coney.

"This non-rustless iron, which you see."—Kinnie.

"If you don't believe it, I can prove it."—Dr. Olshausen.

"Now we would say that we had hurt our hand, etc."—Pa Fairfield.

"Any more to be said on this point?"—Jinny.

"Regan, get my log table."—Kinnie.

Mr. Fish—"Now you see these molecules are in compression—that is, they are squeezing each other."

Judge—"Oh, to be a molecule."

Scene: physics recitation. Time: late in the afternoon.

Enter Ewell very gracefully and blushing as he finds a small nursing bottle in his chair.

Ewell (looking at Holcomb)—"The child that lost this can have it by calling for it at the end of the hour." [Applause.]

Champney, just before calc. recitation—"Everybody report two done."

Inside Johnny calls for report—"Champney?"

Champney—"Twenty."

Prof. Bird, just before the final mech. exam.—"The Bible says, 'Bear ye one another's burdens', but that does not mean, 'Do ye one another's problems."

"Why er-r—ain't you got a shorter meter stick?"—Sawin in the Physics Lab.

Prof. Bird—"The students all know a good deal when they come to the Institute (looking at Champ.), but they don't know anything when they go away, so the instructors must learn a lot."

Birdie to Lewis—"If I divide the number of cubic inches by 1,728, what have I got?"
Lewis—"You have got it wrong."

Prof. Bird to Lowe—"You see the rest of the men are not so bright as you are."

"That's right off the bat, so to speak."—Davy.

In Physics Lab. discussion: Duff—"Mr. Packard, what is hysteresis?"
Packard—"Fifty-four."

"There must be a cross-section in the circuit somewhere."—Frary.

Dick Smith, orating in class meeting—"If we can get Prof. Bird to help us, that will be a big boost."

Johnnie to Joe Regan—"You are one of those fellows who could not tell a crow from a hen."
Joe (sotto voice)—"I am no farmer."

Bidwell in Physics 2—"The heat developed by the friction of the brakes on the wheels of a train is used in heating the cars."

"Boyle's law is not strictly true, but it is perfectly accurate."

"An ampere is a dyne with a centimeter radius and a C. G. S. at the center."

Law, warming up in Sophomore debate—"Will you sit here and stand for that?"

Darrah, in electric lab. quiz, after trying to get some more data from J. O. P.—"Well, what do we know?"
J. O. P.—"That's just what I'm trying to find out."

Ticknor, explaining a difficult physics problem—"Let t= time of one osculation."

Dr. Ewell—"Mr. Nims, will you please go to the board and draw a vertical line sloping slightly to the left?"

Wood, in mechanics—"Would not more head-room be desirable in this case?"

Mr. Fish—"Well, it might in your case."

Dr. Sinclair, reading the division list—"Beers, W. A."

Beer, hurriedly—"No, sir, just one Beer."

Fish, to the '08 mechanics—"Just figure out the moment of the section and tell me the result when you get it."

Chorus of slide-rule wizards—"250, 478, 1323, 2300."

Fish—"Here, hold on there, this is no auction sale."

Bird, explaining very exacting requirements of thesis reports—"—— and they must each be tied with a blue string."

Bird's advice to the mechanics—"Tell the truth if you have to lie to do it."

Bird—"This year the holiday comes on Saturday morning."

Lewis—"Does the whole of it come then?"

"If you don't do anything, you needn't go into details about it."—Bird's advice on thesis reports.

Dr. Engler, talking to the Senior class—"We'll say it was Aristotle. You won't know the difference. Any way he was a friend of mine."

Bird, trying to make resistance clear—"If I could jump up and down fast enough, and make my arms go, I could fly."

Found on quiz paper in business law—"Common law is that which is not statue."

Bird in shop management—"What would you do with a surplus that you had at the end of the year and which had to be put somewhere on the statement?"

Chesley—"Why, I should think that you would put it in your own pocket and keep quiet about it."

Neal in machine design—"I don't see that machine design is anything but fussing anyway."

Ding—"Oh, no. Fussing is wandering around and picking up what you can get."

Rockwood—"Do you see the point, Mr. Langley?"
Si—"Yes, sir."
Rockwood—"Is there anyone else who doesn't see the point?"

We omitted to mention by request, in the write-up of Prof. Ives, that he is thirty years old.

Dr. Bonnet—"It is strange how sensitive we are to certain colors. Now I am very sensitive to 'violet.'"

Chace, reading from a German exam—"If the sun should shrink to one-twenty thousandth of its present diameter, the change would be hardly noticeable."

Kinnicutt—"This colorless gas which you see here."



THE WAY A CHEMIST "GRINDS"

Good morning, Dr. Ph. D.,
You're looking very thoughtful,
    You must have something on your mind,
    A new idea, or such a find
    That's sure to startle all mankind,
And make us all be thoughtful.

You must have stayed up late last night;
Perhaps you thought it over,
    And proved why theta over pi
    Will equal theta minus pi,
    And feel we'll see it if we try
To simply think it over.

Mayhap your series dynamo
Is on a shunt this morning,
    And is now struggling on the road
    With much reluctance and all bowed
    By a fifty-ampere overload
And lags behind this morning.

Perhaps you've solved how alchemy
Can take the lead tomorrow;
    How in your subway lab, by night,
    The entire world you will excite,
    By making gold bricks from pyrite—
    But just one favor we invite
    Of your great wisdom: set us right
    And keep us informed every night
How Ohm's Law 'll read tomorrow.

"Down the Line with Pa"

(A Playlet of the 20th Century)

Time—1908 A. D. 7.59 A. M.

Place—Washburn Machine Shops of W. P. I.

Dramatis Personæ:

Head Instructor of Washburn Machine Shops of W. P. I. and member of the A. S. M. E.

A Student in the Mechanical Course.

(Enter student, overalls in hand and swallowing the last mouthful of breakfast. H. P. stands at desk, one eye on student, other eye on clock, and "late" stamp in hand.)

Pa—Good morning, Mr.—Mr.—er—yes, here's your time book, which we will give you when you have drawn your overalls on, ready for work.

(Student hurriedly pulls on overalls wrong side out, just after the hand of the clock has passed the hour of eight. The "late" stamp descends on the book.)

"You understand, do you not, that we would prefer not to mark you tardy, but in accordance with the customary system, they require a report just before holidays, and so we usually plan to hand one in at this time. Let me see, you were working on—oh, you can't get the machine? Well, we will go down with you and see if we can make it right with Thure. I will also introduce you to one of the journeymen and we will see if he can arrange that matter for you—just a minute while I lock my desk! All right now. (Pa starts with left foot, student with right—left, right, left—out of phase—hitch—left, right.) When I was out in Ohio we—I'll be right back in a moment after I'm through with this Senior—you see that man there is taking great interest in his work. We believe that with our methods, we give the ambitious student the greatest possible chance in the world, with the competent and conscientious instructors here. Good morning, Thure, now we were just looking for you. This young man wishes me to—pardon me just a moment (Pa hurries over to nail a Sophomore and then returns). Well, that man there was using a twist drill for a dead center and I believe that we should correct him. As we were saying, in regard to the matter you spoke to me about, the other day, I was very familiar with that branch of work when I was out in Ohio, and I have a great many catalogues on that subject, but—well, now, I believe—we will look that matter up for you." (Prexie enters with an official from the Japanese Government who wants to learn how we run a machine shop. The student being left alone sees no chance of doing any work, so he goes home to take a bath and a shave, and returns in time to see Pa bow the Jap out of the door, and then passes in his book filled out, "Planning work, 4 hours.")

Twenty-three "sposin's" in three minutes is the record for one demonstration. Dr. Ewell is the present holder.

Connie—"It's your high school algebra."
Johnnie—"It's your college algebra."
Bird—"It's your calculus."
French—"It's your mechanics."
And that is the way it goes.

1907=1908-1.

Will some one kindly tell us how to pronounce "centimeter" correctly?


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THE AFTERMATH ADVERTISER

WJ WEIR

A Faculty Exam

This exam is given for the admission of members to the Faculty September, 1906.

1. If 60 men out of 400 have got to get screwed to make room for those entering, what is the probability that they will all be civils? Ans., 1.

2. If it is desirable to keep down athletics in the school, how much nerve must it take to write in the catalogue about the beautiful eleven-lap track, and fine tennis courts on the campus? Ans., Infinity.

3. If the Tech campus is a place of beauty, how much more beautiful does the dump across from the mechanics lab. make it? Ans., $.000023^{16}$.

4. If a Faculty meeting lasts 3 hours, and Prexy talks 2 hours and 59 minutes, who else will speak? Ans., Miss Valva.

5. Your reason for your answer in (4)? Ans., Because everyone else is asleep.

6. What is the formula for clearing out that husky sound in your throat? Ans., Formula for alcohol.

7. If the tuition of the school is $150, what is the chance that a student will have to pay a $10 Lab. fee? Ans., Good.

8. If pig 1 is short and fat, and pig 2 is long and lean, in what proportion would you have to mix pigs 1 and 2 to have a good scrap? Ans., $P_1 : P_2 =$ Bird : French.

9. What are the requirements of a good teacher? Ans., A good deal of nerve, a lot of bluff, a wise look, and a limited knowledge of the subject.

10. What is the probability that the students will ever be entertained by any of the Profs.? Ans., 0.

11. Give the three best legitimate ways of screwing a really bright man whom you don't like. Do not answer this in writing.

12. If A has a temp. of 16 degrees, and B has a sp. gr. of 18, and C is a constant=.0052, what formula would you use to get the H. P. of Doc. Ewell when he pumps his bicycle up Tech Hill? Ans., MEwell.

13. From the above data find out what he gives the Sophomores. Ans., Hel^2.

14. What is the formula for the thing that makes the machine go? Ans., PigEbIrd.

Choose any ten of these.

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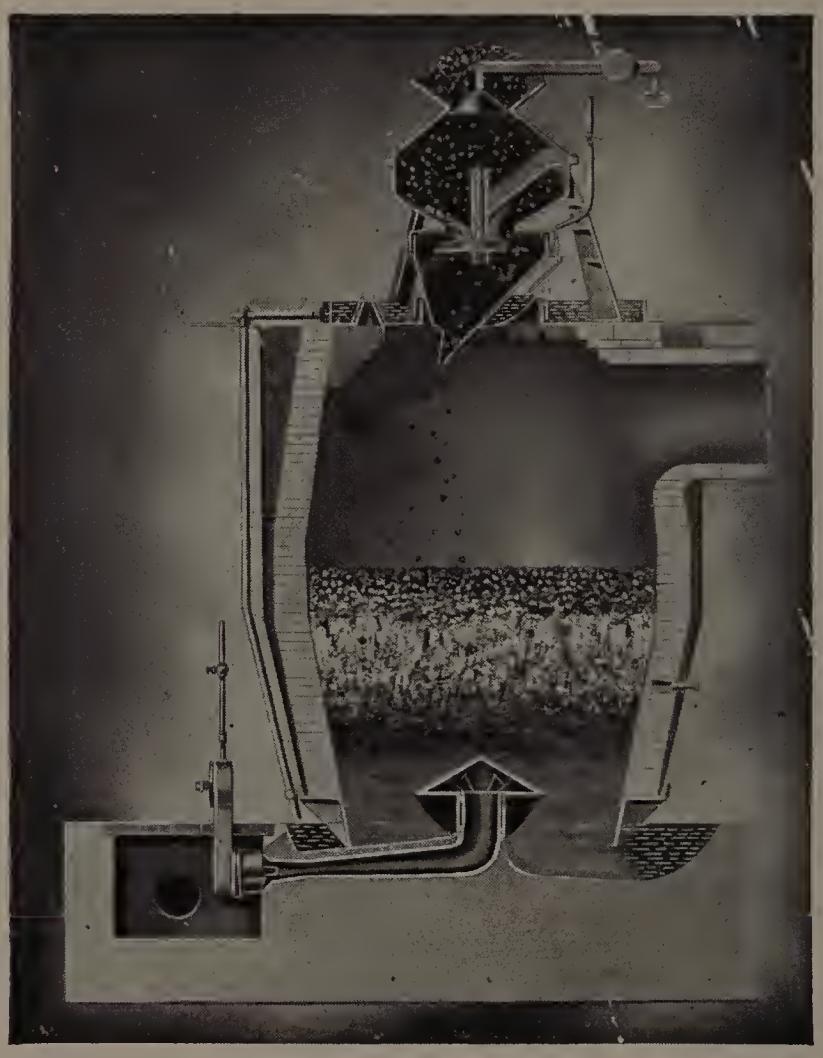
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(Signed) ALLBUT SKREWED, Jr.

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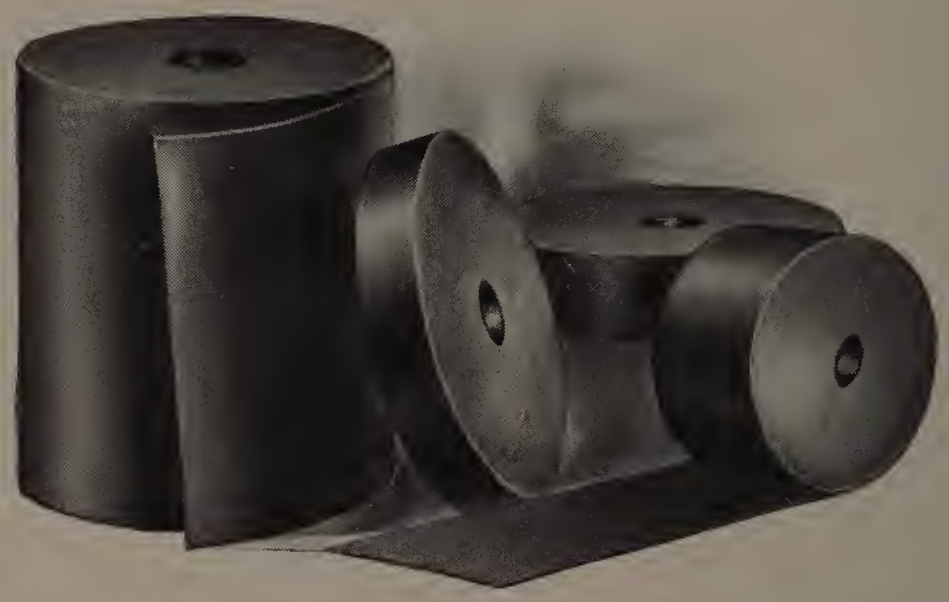
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Coming to the order of to-day, gentlemen, Seager suggests that my text this morning, "Per order of the President," is very nearly perfectly obvious, and if the men will prepare themselves with pencils and paper we believe that if my tally is correct, and what Ripper says is true, by proving to you that the first month's marks don't count, being only a tentative design, and a little mite low I should say, we can make you feel like *prctty* small pertaters. Excuse me, excuse me, now lemme see; I'm free to confess that the passage is a trifle involved right through here, but if the men will read between the lines, it will be quite clear. What I was going to say was, that if you men don't get a hump on, I fail to see how you are going to graduate· so get busy, fellers, for you must keep at a velding heat. Now I can stand right here and watch you if I have to, and although this is no kindergarten, you would make me pull my hair if I had any; howsoever, I am pleased to note that the work is coming in with commendable regularity, and although in some cases extensions have been asked, and in most cases invariably and gladly granted, the burden of proof rests on you, post hoc propter hoc, like unto that. Any questions? See what I mean, boys; see what I mean?

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Hay—"Why is astronomy at the Institute like Eve?"

Baker—"I don't know, Happy."

Hay—"Because they are both side issues."

Baker—"He ought to join the army; it would take the swelled head out of him."

Happy—"I don't believe it, Bill."

In debate: Strachan—"Now the Italians who come over here to this country live on nothing over in Italy, and they live on nothing in this country, too, only it costs more."